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State Capitol, Denver

JOHN T. JOYCE, *Commissioner of Mines*

ANNUAL REPORT

for the Year 1937

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LETTER OF TRANSMITTAL

To His Excellency,
THE HONORABLE TELLER AMMONS,
Governor of Colorado.

Sir: In compliance with Chapter 110, Section 285 of the Colorado Statutes Annotated 1935, I have the honor to transmit herewith the Annual Report of the State Bureau of Mines for the year 1937.

Respectfully submitted,

JOHN T. JOYCE,
Commissioner of Mines.

State Capitol,
Denver, Colorado,
June 15, 1938.

FINANCIAL STATEMENT

1935-1937

Appropriations for the fiscal years 1935-1937:

Salary, Commissioner	$ 6,000.00	
Salaries, 4 Inspectors	20,000.00	
Salary, Clerk and Assistant Curator	3,600.00	
Salary, Stenographer and Assistant Clerk	3,000.00	
		$32,600.00
Traveling Expenses, Commissioner and Inspectors		12,000.00
Incidental Fund		1,000.00
		$45,600.00

DISBURSEMENTS

Salary—		
Commissioner	$ 5,790.00	
Inspector, District No. 1	4,824.96	
Inspector, District No. 2	4,824.96	
Inspector, District No. 3	4,824.96	
Inspector, District No. 4	4,824.96	
Clerk and Assistant Curator	3,450.96	
Stenographer and Assistant Clerk	2,894.88	
Extra Help	100.00	
Retirement Fund	1,141.92	
Group Insurance	22.08	
		$32,699.68
Traveling Expenses, Commissioner and Inspectors		11,939.32
Miscellaneous		37.75
Incidental Expenses		898.34
Unexpended Balance		24.91
		$45,600.00

PERSONNEL OF THE BUREAU OF MINES OF THE STATE OF COLORADO

JOHN T. JOYCE, Commissioner of Mines	Denver
GEORGE BECKER, Inspector, District No. 1	Denver
HERRICK McLEOD, Inspector, District No. 2	Colorado Springs
R. J. MURRAY, Inspector, District No. 3	Salida
D. C. McNAUGHTON, Inspector, District No. 4	Silverton
ETHEL F. McCARTHY, Chief Clerk	Denver
BETTY PERMENTER, Stenographer and Assistant Clerk	Denver

DISTRICTS OF INSPECTION

DISTRICT No. 1—[a]Adams, Arapahoe, Boulder, Clear Creek, Denver, Gilpin, Grand, Jackson, Jefferson, Larimer, Logan, Moffat, Morgan, Phillips, Routt, Sedgwick, Washington, Weld and Yuma counties.

DISTRICT No. 2—[b]Baca, Bent, Cheyenne, Crowley, Custer, Douglas, Elbert, El Paso, Fremont, Huerfano, Kiowa, Kit Carson, Las Animas, Lincoln, Otero, Prowers, Pueblo and Teller counties.

DISTRICT No. 3—[c]Chaffee, Delta, Eagle, Garfield, Lake, Mesa, Park, Pitkin, Rio Blanco and Summit counties.

DISTRICT No. 4—[d]Alamosa, Archuleta, Conejos, Costilla, Dolores, Gunnison, Hinsdale, La Plata, Mineral, Montezuma, Montrose, Ouray, Rio Grande, Saguache, San Juan and San Miguel counties.

On August 2nd, 1928, all former Departmental orders of temporary transfers from one district to another were vacated and in lieu thereof the following temporary changes in the dfferent districts were made by order of the Commissioner of Mines, to-wit:

[a]All of the county of Summit and that part of Park County lying north and west of a line drawn from the southwest corner of Jefferson County to the southwest corner of Park County were temporarily transferred from District No. 3 to District No. 1.

[b]That part of said Park County lying south and east of said line was temporarily transferred from District No. 3 to District No. 2.

[c]That part of Gunnison County in the extreme northwest corner and lying north of the 39th degree of latitude, that part of Saguache County lying south and east of the Continental Divide and all of the counties of Mineral, Rio Grande, Conejos, Alamosa and Costilla were temporarily transferred from District No. 4 to District No. 3.

[d]All of the counties of Mesa and Delta were temporarily transferred from District No. 3 to District No. 4.

The remainder of all said districts to be left intact as now established by law until further changes are made by order of the Commissioner of Mines, or by the legislature of the State of Colorado.

INTRODUCTION

The activities of the Bureau of Mines during 1937 were confined to the usual routine, no funds for any special work being provided.

The four inspectors visited practically all of the operating metal mines, quarries, mills, smelters and railroad tunnels at least once during the year. Most of the larger operations were inspected more than once. The object of these inspections is to eliminate, as far as possible, unsafe conditions and practices in the operation of such properties. In general, this work meets with the lively cooperation of the operators.

The Commissioner and Inspectors are anxious to help the mining industry in every legitimate manner and wish to be called upon whenever their services can be used.

Inquiries regarding the mines and mineral resources of the state and questions regarding the demand and market for less common mineral products are constantly coming into the Bureau. An earnest endeavor is made to furnish the information desired. Helpful cooperation is often received from the Colorado Mining Association, the United States Bureau of Mines and the United States Geological Survey.

The Commissioner takes this opportunity of expressing his appreciation of the loyal and efficient services that have been rendered by the entire personnel of the Bureau during the past year.

METAL MINING IN COLORADO, 1937

By John T. Joyce
(Commissioner of Mines)

Owing to changed conditions in the mining industry, both nationally and internationally, during the past two decades, I have decided to confine this report to a factual review thereof, based upon statistical figures issued by the United States Bureau of Mines, Washington, D. C., and the American Bureau of Metal Statistics of 33 Rector Street, New York City, because of their material bearing upon the mining industry in Colorado and other states of the western field.

The World War with its vast demand and consumption of all classes of metals, coupled with subsequent industrial progress, brought to light as never before the true and overwhelming importance of mining as a predominating basic industry of the world loaded with a variety of natural problems, nearly all calling for scientific research and solution.

In short, it wrought many important changes in pre-war mining conditions and practices. Among the more important are the remarkable advancements in metallurgy, technology, mechanism and transportation. This tremendous war demand and consumption sent the market prices of all metals soaring to the highest peak known in history—silver reaching about $1.37 per ounce, copper 35c per pound, lead and zinc each 16c per pound, iron and other metals and alloys in corresponding proportions. In order to reap the fullest benefit possible from such conditions, the reserves of higher and medium classes of ores in nearly every mine of this and other countries were practically exhausted by enforced extraction. Very little, if any, attention was given to development of new reserves during that momentous period.

At the close of the war the nations engaged in that great strife, both the victor and the vanquished, found themselves loaded down with enormous quantities of refined metals. All were in debt and some broke. Having but little further use for these metals, they threw the same upon the market, which caused a rapid decline in their prices during the succeeding decade, silver finally reaching a low of 50c an ounce, copper 10c per pound, and lead and zinc 4c per pound. Depressed conditions naturally followed which had a serious effect upon the mining, smelting and milling industries of the nation. With the ore reserves of high and medium grades gone, there was not sufficient ore of a smelting grade immediately obtainable to maintain operation of the smelters at their pre-war capacity.

Necessarily, smelting curtailment followed. This brought the industry face to face with the fact that its future inevitably depended upon the medium and lower grade ores, with increased modern milling practices as the basis for all its future operations. High grade mines are becoming so scarce that they are now looked upon as only incidental to mining. With these established facts before them, the large smelting institutions realizing that readjustments were necessary for profitable operation, proceeded to build up to meet the new condition by the employment of new and improved metallurgical practices. All this brought about numerous world investigations which are still going on with ever-increasing latitudes. These investigations reveal a remarkably unequal geographic distribution of the world's mineral resources through its various greater subdivisions. Predominantly extensive in some and conspicuously limited in others, considered in connection with their vital need for worldly industrial progress and the peace, welfare, happiness and safety of mankind, their economic extraction, transportation, reduction and refinement naturally become a matter of deep national and international concern.

Economists and geologists admit that the United States exceeds all other nations in the extent, variety and wealth of mineral resources. In general averages it is the largest producer and greatest consumer of the principal industrial and commercial metals. They freely credit it with a production of between forty and fifty per cent in value of the entire world's production of all metals combined and a leader in volume of the more important, with the exception of silver and gold, in which it ranks second and third respectively. Confirmation thereof is shown by the following tabulations taken from the figures published by the United States Bureau of Mines and the American Bureau of Metal Statistics, in relation to gold, silver, copper, lead and zinc, upon which the mineral industry in Colorado and the entire western field is principally based.

WORLD'S PRODUCTION OF PRECIOUS AND NON-FERROUS METALS

Gold

The world's grand total production of gold for the year 1937 was 36,266,524 refined ounces from the following principal divisions, subdivisions and countries of the earth: Africa first, with 13,994,572 ounces, of which amount the Transvaal produced 11,734,575 ounces; North America (including Central America and the West Indies) second, with 9,864,725 ounces, of which amount the United States produced 4,753,104 ounces; Canada, 4,090,621 ounces; the remainder coming from Mexico and other smaller countries; Europe, third, with 7,074,747 ounces, of which amount Russia and Siberia produced 6,500,000 ounces; Asia, fourth with 2,077,000 ounces; Oceania, fifth, with 1,821,906 ounces; South America, sixth, with 1,433,574 ounces. In 1936 the same sources produced 34,218,187 ounces. Total world's increase for 1937 of 2,048,337 ounces over 1936.

Silver

The total silver production of the world for 1937 was 273,322,943 ounces, of which amount the Western Hemisphere produced 214,537,175 ounces, approximately 78½ per cent of the total world's production, divided as follows: North American Continent produced in refined ounces 178,116,953, of which amount Mexico, first, produced 84,678,921 ounces; United States, second, 69,315,000 ounces; Canada, third, 22,683,032 ounces; and Newfoundland, fourth, with 1,440,000 ounces. Central America and the West Indies produced 3,730,000 ounces, and the South American Continent 32,690,222 ounces. The Eastern Hemisphere produced the balance—58,785,768 ounces. World ratio of production 7.53 ounces silver to one ounce gold.

Copper, 1937 (In short tons)

World's production			2,505,345
United States production	839,344		
All other countries	1,666,001		
	2,505,345		
World's consumption		2,422,620	
United States consumption	878,186		
All other countries	1,544,434		
	2,422,620		
Excess world production		82,725	
		2,505,345	2,505,345

Imports and Exports

Imports—Ore and concentrates, regulus black or coarse, etc., metallic content			73,158
Metallic, refined and unrefined	202,260		
Old and scrap, etc	3,341		205,601
			278,759
Exports—Refined in ingot and other forms	294,279		
Old and scrap	20,914		
Ore and concentrates	4,088		
Manufactures	68,665	387,946	
Excess exports			109,187
		387,946	387,946

Lead, 1937 (In short tons)

World's production			1,886,334
United States production	469,892		
All other countries	1,416,442		
	1,886,334		
World's consumption		1,918,884	
United States consumption	553,906		
All other countries	1,364,978		
	1,918,884		
Excess world consumption			32,550
		1,918,884	1,918,884

Imports and Exports

Imports—Ores and matte content	34,101		
Bullion content	1,800		
Pig, bars, etc.	5,022		40,923
Exports—Pig, bars, etc.		*20,091	
Import excess		20,832	40,923

Per cent of ore and matte content not given.

*Includes 8,056 tons export to Mexico for refinement.

Zinc, 1937 (In short tons)

World's production of zinc			1,830,335
United States production of zinc	595,319		
All other countries	1,235,016		
	1,830,335		
World's consumption of zinc		1,791,899	
United States consumption of zinc	606,596		
All other countries	1,185,303		
	1,791,899		
Excess world production		38,436	
		1,830,335	1,830,335
Imports—Ore and concentrates, content	8,811		
Blocks, pigs and old	39,398		
Zinc dust	69		48,278
Exports—Zinc pigs, slabs, etc.	249		
Zinc sheets, strips, etc.	5,812		
Zinc dust	2,145		
Zinc dross	314	8,520	
Imports excess		39,758	
		48,278	48,278

The figures show that the United States consumed 84,014 tons of lead, 38,842 tons of copper and 11,277 tons of zinc more than it produced in these respective metals.

The foregoing tabulations of different metals are based entirely upon totals given by the American Bureau of Metal Statistics, which were taken largely from the Federal Bureau of Mines as to the United States production. To give them in detail would require volumes—more than I would be permitted to use in this report. While they represent only a very few of the innumerable different classes of minerals produced in the United States, conclusions may be drawn indicative of the predominating importance of the mining industry.

In the production of gold, 1937 statistical reports show that Great Britain, with her colonies, mandates and possessions, ranked first with over 50% of the entire world production; Russia and Siberia, second, with a little less than 18% production; and the United States, third, producing slightly more than 13%; the balance produced by smaller countries.

Philosophize as we may from every point of view, still the cold fact remains that no nation of the vast wealth and power of the United States with its great expanse of natural resources, mineral and otherwise, as rich as they are varied, can hope to remain self-sufficient and practically aloof from modern world affairs. It must take the place destiny has ordained it should take among the nations of the earth in international affairs. From a mining viewpoint it seems to me the mining industry, as a whole, is bound to be materially affected and must be carefully guarded for its own protection by a fair, liberal, but strong and firm policy as against any mining setback through the importation of cheap products from countries employing servile labor, since nothing has a more material bearing on the maintenance of the high standard of living in the United States than the mining industry.

In the continent of North America, the United States is shown first in gold production; Canada second; Mexico third; the remainder being produced by smaller countries. The past three years have added to the United States a new, rich and highly productive gold field in the Philippines, which last year produced 703,580 ounces of refined gold, as against 615,234 ounces produced by Alaska. The Philippines has more than doubled its production in that short period, which gives it second position in rank among the gold-producing states and territories of the United States. At the same rate of increase, in a short time it will strongly rival, if not exceed California in gold production. A condition quite suggestive to the refined politics of leading statesmen. Its total production, if deducted from the total given for the United States, would place the continental United States proper as ranking second to Canada in gold production.

These are the true facts that now confront the mining industry in relation to gold, and if the United States with its admitted extensive gold fields only meagerly developed to shallow depth as compared with other nations, would extend equal encouragement to the development thereof as does Great Britain, Russia and other great countries, we would at least be ranking second in the production of gold today; but obstacles rather than encouragement seem to be the order of the day in reference to the development of our gold fields despite the friendliness of the present administration for the precious metals by the increase of their domestic prices. I would still advise, as I have heretofore strongly advocated in former reports, a strong organization of the mining industry, bringing into one federation all the different organizations for the different metals, including the several state organizations in order that we may present a united militant front in seeking the protection, uplift and advancement of the mining industry by more liberal national policies toward encouraging the development of its mineral resources.

I would advocate the stabilization of prices of metals, and this could be more easily accomplished than that of ordinary and perishable commodities by the employment of a little common sense and a stabilized currency with a bimetallic base of gold and silver, even though gold may be employed as the unit measure for value. I would favor, particularly, governmental aid for the development of our gold mines in which gold is present in a reasonably appreciable quantity. In all cases I would advocate that applications for aid for the development and equipment of mines be first submitted to the mining department of the state in which the mine is situated, for the reason that such state department undoubtedly has more definite and dependable information than can be obtained from outside sources far removed from the scene of action, without expensive investigations; that it should be passed upon by that department, assisted by a competent advisory or planning board for its proper safeguarding. If approved by the state department with its aids, it should then be submitted to the Federal Bureau of Mines at Washington, D. C., which is fully equipped with able mining engineers of great ability headed by Hon. John W. Finch, a mining engineer of international reputation, who are thoroughly competent to pass upon its merits. If approved by the Federal Bureau of Mines, it should be entitled to such financial aid as the government permits, and also to the right to sell its securities by meeting and complying with the rules and regulations of the R. F. C. and the S. E. C. or any other institution of like character that may hereafter be created by the government. Proper steps should also be taken, if necessary, to make this approval sufficient for all Blue Sky Law states. Such action would be received with acclaim throughout the western mining fields, as it would have a tendency to remove the prohibitory cost of financing undeveloped mining properties.

I should like also to advocate that in all successful mines, whose success was made possible through governmental aid, the nation should be entitled to and receive as a just reward a certain royalty of a liberally low percentage during the period of operation after full repayment of the loan.

For the purpose of securing as close cooperation as possible between the State Bureau of Mines and the various mine operators of the state for the general welfare and uplift of the mining industry and the better operation of mines, mills, quarries, etc., along the lines of safety standards, the mining area of the state was divided into four separate mine inspection districts, known as Districts Number 1, 2, 3 and 4, with one inspector appointed for each district, operating under the jurisdiction of the Commissioner of Mines, head of the Bureau. (See Sec. 278, Chapter 10, 1935 Colorado Statutes Annotated.) The wisdom of this move soon became apparent by the new methods employed in such inspection, overcoming the duplication of work caused by conflicting reports and in the main a gradual lessening of accidents, fatal, compensable, etc., in proportion to number of shifts worked. (See section relating to mine accidents.)

At the close of the calendar year each inspector files a report of activities in his respective district, which is appended and becomes a part of the Bureau's annual report. The main activities in the various mining districts during the year 1937 are described in the four inspectors' reports, appended. The 1936 annual report was prepared but not printed because of exhaustion of the state printing fund at the close of the 1935-1936 biennium, coupled with the most trying economic conditions and financial problems that confronted Governor Teller Ammons at the very beginning of his administration, unequalled in the state's history. This action was taken by the Commissioner of Mines in order to comply with the Governor's urgent request calling for curtailment in all state governmental departments of operating expenses to the greatest possible extent when and where it could be done without materially impairing efficiency.

Owing to the heavy increase of activity in the mining industry of the state in 1936 and its bright outlook at the dawn of 1937, the demand for copies of this report exceeded all former years. Accordingly, though not printed, the report was fully compiled and prepared in manuscript, which is preserved among our files for anyone who may wish to study the same in detail.

The more salient parts, however, are incorporated in this Annual Report for 1937, such as the 1936 total production of the precious and non-ferrous metals in Table No. 1—accidents in Tables Nos. 2, 3, 4, etc.

The production of the State of Colorado in gold, silver, copper, lead and zinc will be found in Table No. 1 for the years 1936-1937. The total production for 1937 shows an increase of $2,287,338 over 1936. The increase in the various metals was as follows: Gold, $80,430; silver, $270,946; copper, $1,014,868; lead, $486,184; zinc, $434,910. The leading counties in total production were as follows in the order named: Eagle, Teller, San Juan, Park, Clear Creek and Lake. Teller County led in production of gold, Park second, Clear Creek third, Boulder fourth and Lake fifth. In silver production Eagle was first, San Juan second, Mineral third, San Miguel fourth, Ouray fifth and Lake sixth.

It is geologically admitted that Colorado has the most extensive mining territory of any state in the Union. It is also the least developed. In many former reports I have dwelt at length upon this subject, quoting the conclusions of eminent geologists and citing well-established facts in confirmation thereof. Proof of the correctness of this contention is so abundant from a thousand different sources that further remarks would appear to be superfluous. However, there is one important feature I would like to briefly restate, viz.: that of our 30,000 square miles of highly mineralized area, less than one-half is exposed and not over 6,000 square miles geologized, the remainder being covered and concealed by heavy overburden composed of volcanic overflows and mountain erosions. Nature in its scoring of our tremendous mountain uplifts certainly did not confine its work of millions of years to that portion alone that contained rich mineral veins and deposits. Therefore, it is only reasonable to assume that an equal, if not far greater, number of good mines remain yet to be discovered in this concealed territory.

Of the mines discovered and worked in the early years of the state, at least eighty per cent were closed down after the high grade had been extracted, leaving large bodies of low and medium grade ores still remaining for extraction, the greater part of which is readily available, and means should be furnished for their recovery.

Observations of like character can be applied to several remote districts neglected for years because of inadequate means of transportation. They are full of good prospects and mines that justify the expenditure of money for their development. They are now reached and penetrated, or are close to good automobile and truck roads. In all, the state offers a tremendous field for mining investments in its various branches. The crying needs of the day are for extended developments at greater depth in all parts of the state, in which particular it has been deplorably lacking; (in the past few years such developments have revealed large ore bodies at enormous depth, many of which increased in volume and value as depth was gained); one or more large central milling plants for the final reduction of its products; governmental aid where justified under more liberal terms than those existing at this time, and the owners themselves should awaken to the fact that early-day high prices and stringent terms will no longer be accepted by the average investor. They must truthfully describe their holdings and be reasonably liberal as to price and terms if they hope to realize on their holdings within their lifetime.

MISCELLANEOUS METALS

Molybdenum

The largest known molybdenum mine in the world is located at Climax, Colorado, and is being operated by the Climax Molybdenum Company. During 1937 the reported production was 22,750,368 pounds of 100% molybdenum.

Tungsten

The largest and most productive mines are at Nederland in Boulder County. The reported production of tungsten in this county for 1937 was $83,052.95.

Manganese

Manganese is found in large quantities in a great many mining counties in the state. In 1937 the reported production of manganese from Saguache and Lake counties was $59,762.13.

Radium, Uranium, Vanadium

The most extensive field for these metals is near Naturita in the western part of Montrose County. In 1937 the reported production of vanadium was 41,527 tons.

Nonmetallics

Building and monumental stone, such as granite, marble, onyx, etc., can be supplied from vast stores of this material, in various parts of the state. Quarries supplying these stones are located in Chaffee, Gunnison and other counties of the western slope. Building sands and gravels are found in abundance along all rivers and streams.

The clay deposits of Colorado are unexcelled. Beryl, feldspar, fluorspar, bentonite, limestone, sandstone, gypsum, and many other materials are found in large quantities. Enormous oil shale deposits exist in several of the western counties. Mica, jefferisite and other insulating materials are widely distributed in Colorado.

Operating Mines and Employment

The number of working lode mines, upon which reports were filed in the State Bureau of Mines for 1937 was 562. A great many additional properties produced amounts varying from $100.00 to $2,000 from intermittent operations.

In 1913 the number of men employed in and about mines in the State of Colorado was in round numbers 24,000; in 1932 not over 4,000 men were so employed, a decline of 83% during that period. During the same period the decline of employment in Idaho was only 31% and in Utah about 42%. The difference between these percentages is strongly indicative that the lack of smelting and large reduction plants was the principal cause for the excessive decline of mining in Colorado as compared with other states.

Because of the number of small operations in both lode and placer mines it is impossible to get the exact number of men employed in 1937, but an estimate of 16,400 would be most conservative.

Acknowledgment

Thanks are due to John W. Finch, director, and C. W. Henderson, engineer, the United States Bureau of Mines, for the production statistics regarding the common metals.

TABLE I

PRODUCTION OF THE PRINCIPAL METALS IN COLORADO DURING THE YEARS 1936 AND 1937

County	GOLD				SILVER				COPPER				LEAD				ZINC				1936 Total	1937 Total	Plus Minus	Increase or Decrease in Value	County
	1936		1937		1936		1937		1936		1937		1936		1937		1936		1937						
	Fine Ounces	Value	Fine Ounces	Value	Fine Ounces	Value	Fine Ounces	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value	Pounds	Value					
Adams	85.20	$ 2,982	184.80	$ 6,468	13	$ 10	23	$ 18	....	....	....	....	....	....	....	....	....	....	....	....	$ 2,992	$ 6,486	+	$ 3,494	Adams
Arapahoe	38.00	1,330	15.60	546	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1,330	546	—	784	Arapahoe
Archuleta	....	....	....	....	....	....	43	33	....	....	....	....	....	....	800	$ 47	....	....	2,000	$ 130	....	210	+	210	Archuleta
Boulder	25,963.20	908,712	21,134.60	739,711	59,082	45,759	41,819	32,347	32,000	$ 2,944	51,000	$ 6,171	135,000	$ 6,210	121,000	7,139	....	....	....	....	963,625	785,368	—	178,257	Boulder
Chaffee	1,686.20	59,017	1,129.80	39,543	13,778	10,671	15,499	11,988	18,000	1,656	28,000	3,388	234,000	10,764	346,000	20,414	....	....	146,000	9,425	82,108	84,758	+	2,650	Chaffee
Clear Creek	24,441.60	855,456	32,372.20	1,133,027	111,885	86,655	155,797	120,509	187,400	17,241	368,000	44,528	578,300	26,602	963,000	56,817	....	....	18,000	1,170	985,954	1,356,051	+	370,097	Clear Creek
Costilla	13.20	462	12.60	441	1	1	2	2	....	....	....	....	....	....	....	....	....	....	....	....	463	443	—	20	Costilla
Custer	92.00	3,220	51.40	1,799	5,898	4,568	7,850	6,072	2,300	212	....	....	44,000	2,024	111,000	6,549	....	....	6,000	390	10,024	14,810	+	4,786	Custer
Delta	....	....	3.40	119	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	120	+	120	Delta
Denver	....	....	2.40	84	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	84	+	84	Denver
Dolores	308.60	10,801	923.60	32,326	20,031	15,514	63,320	48,978	14,000	1,288	14,000	1,694	238,000	10,948	256,000	15,104	279,000	$ 13,950	272,000	17,680	52,501	115,782	+	63,281	Dolores
Douglas	24.40	854	18.60	651	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	854	651	—	203	Douglas
Eagle	11,947.00	418,145	12,565.00	439,775	3,697,632	2,863,816	4,073,364	3,150,747	15,932,700	1,465,808	18,915,000	2,288,715	982,800	45,209	1,160,000	68,440	....	....	....	....	4,792,978	5,947,677	+	1,154,699	Eagle
Elbert	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....		....	Elbert
Fremont	2.80	98	1.40	49	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	98	49	—	49	Fremont
Gilpin	22,569.80	789,943	15,829.40	554,029	77,947	60,370	46,521	35,984	32,000	2,944	22,000	2,662	328,700	15,120	185,000	10,915	12,000	600	20,000	1,300	868,977	604,890	—	264,087	Gilpin
Grand	4.60	161	6.00	210	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	161	210	+	49	Grand
Gunnison	2,903.60	101,626	1,153.60	40,376	5,765	4,465	11,122	8,603	....	....	1,000	121	26,000	1,196	79,000	4,661	5,000	250	174,000	11,310	107,537	65,071	—	42,466	Gunnison
Hinsdale	90.60	3,171	23.40	819	62	48	3,726	2,882	....	....	3,000	363	400	18	73,000	4,307	....	....	5,000	325	3,237	8,696	+	5,459	Hinsdale
Jackson	....	....	5.00	175	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	175	+	175	Jackson
Jefferson	106.20	3,717	89.60	3,136	22	17	20	15	....	....	....	....	....	....	....	....	....	....	....	....	3,734	3,151	—	583	Jefferson
Lake	15,284.80	534,968	17,745.80	621,103	134,062	103,831	180,471	139,594	43,000	3,956	89,000	10,769	3,107,000	142,922	4,203,000	247,977	1,742,000	87,100	3,352,000	217,880	872,777	1,237,323	+	364,546	Lake
La Plata	1,204.60	42,161	2,150.60	75,271	11,051	8,559	31,846	24,633	....	....	....	....	13,300	612	257,000	15,163	....	....	....	....	51,332	115,067	+	63,735	La Plata
Larimer	74.00	2,590	88.60	3,101	88	68	28	22	....	....	....	....	....	....	....	....	....	....	....	....	2,658	3,123	+	465	Larimer
Las Animas	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....		....	Las Animas
Mesa	4.00	140	....	....	14	11	40	31	1,000	92	1,400	169	....	....	....	....	....	....	....	....	243	200	—	43	Mesa
Mineral	....	....	4.40	154	422,071	326,894	321,546	248,716	....	....	....	....	370,800	17,057	278,000	16,402	....	....	....	....	343,951	265,272	—	78,679	Mineral
Moffat	218.80	7,658	932.40	32,634	13	10	48	37	....	....	700	85	....	....	....	....	....	....	....	....	7,668	32,756	+	25,088	Moffat
Montezuma	1,593.20	55,762	1,948.00	68,180	3,414	2,644	2,397	1,854	2,000	184	2,000	242	....	....	....	....	....	....	....	....	58,590	70,276	+	11,686	Montezuma
Montrose	161.20	5,642	58.00	2,030	44	34	711	550	....	....	24,000	2,904	....	....	....	....	....	....	....	....	5,676	5,484	—	192	Montrose
Ouray	8,979.20	314,272	10,176.20	356,167	406,244	314,636	182,389	141,078	250,500	23,046	483,000	58,443	1,410,000	64,860	962,000	56,758	....	....	25,000	1,625	716,814	614,071	—	102,743	Ouray
Park	56,267.20	1,969,352	48,733.80	1,705,683	50,302	38,959	61,357	47,460	25,000	2,300	67,000	8,107	1,634,000	75,164	1,272,000	75,048	....	....	6,000	390	2,085,775	1,836,688	—	249,087	Park
Pitkin	4.60	161	....	....	198,319	153,598	165,404	127,940	....	....	700	85	669,000	30,774	832,000	49,088	200,000	10,000	105,000	6,825	194,533	183,938	—	10,595	Pitkin
Rio Blanco	....	....	1.60	56	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	56	+	56	Rio Blanco
Rio Grande	12,989.14	454,620	15,369.40	537,929	25,271	19,572	34,053	26,340	70,000	6,440	29,000	3,509	....	....	1,200	71	....	....	....	....	480,632	567,849	+	87,217	Rio Grande
Routt	30.06	1,052	25.40	889	453	351	555	429	200	18	200	24	3,600	166	5,000	295	....	....	3,000	195	1,587	1,832	+	245	Routt
Saguache	315.26	11,034	278.00	9,730	16,330	12,648	94,186	72,853	65,000	5,980	481,000	58,201	278,700	12,820	361,000	21,299	....	....	16,000	1,040	42,482	163,123	+	120,641	Saguache
San Juan	22,162.00	775,670	25,099.60	878,486	432,603	335,051	484,362	374,654	991,400	91,209	1,102,000	133,342	3,112,900	143,193	6,680,000	394,120	....	....	3,856,000	250,640	1,345,123	2,031,242	+	686,119	San Juan
San Miguel	12,231.60	428,106	11,614.20	406,497	167,211	129,505	204,454	158,145	51,000	4,692	172,000	20,812	1,134,000	52,164	1,127,000	66,493	....	....	10,000	650	614,467	652,597	+	38,130	San Miguel
Summit	3,202.14	112,075	4,085.80	143,003	26,625	20,621	61,681	47,710	12,500	1,150	14,000	1,694	233,500	10,741	299,000	17,641	106,000	5,300	479,000	31,135	149,887	241,183	+	91,296	Summit
Teller	141,608.20	4,956,287	145,070.80	5,077,478	16,545	12,814	16,058	12,421	....	....	....	....	....	....	....	....	....	....	....	....	4,969,101	5,089,899	+	120,798	Teller
Totals 1936-37	366,607.00	$12,831,245	368,905.00	$12,911,675	5,902,776	$4,571,700	6,260,693	$4,842,646	17,730,000	$1,631,160	21,868,000	$2,646,028	14,534,000	$ 668,564	19,572,000	$1,154,748	2,344,000	$117,200	8,494,000	$552,110	[2]$19,819,869	[1]$22,107,207	+	$ 2,287,338	

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[1] Average value of metals: Gold, $35.00 per fine ounce; silver, $0.771 per fine ounce; copper, $0.121 per pound; lead, $0.061 per pound; zinc, $0.070 per pound.

[2] Average value of metals: Gold, $35.00 per fine ounce; silver, $0.7745 per fine ounce; copper, $0.092 per pound; lead, $0.046 per pound; zinc, $0.050 per pound.

CONDENSED REVIEW OF MINING DISTRICTS BY THE FIELD INSPECTORS FOR 1937

DISTRICT No. 1 by George Becker

This district comprises the northern and northwestern counties of the state. The mining activities progressed in a healthy and encouraging trend during the year 1937. There were around 5,500 men employed in the various operations which come under the jurisdiction of the Bureau of Mines. It is estimated that 1937 will show an increase in production over 1936.

Boulder County—There was about the usual amount of activity in this county and the future looks good. The following mills were operated during the year: Saint Joe, Boulder, Slide, Wano, Boston, Vickery and John Jay. Approximately 400 tons of mill ore were treated daily and about 125 tons of crude ore and concentrates were shipped daily to outside plants. The Colorado Smelting and Refining Company are constructing a new custom plant southeast of Boulder having a capacity of 300 tons daily. The tungsten mining industry has been very active this year due mostly to the advanced price of tungsten. The following tungsten mills were operated during the year: Wolf Tongue, Gold, Silver and Tungsten Production Inc., Mammoth, Cowdery, Good Friday and Boyle. The Nederland district has the largest and richest tungsten deposits in the state.

Clear Creek County—There was a notable and healthy condition in the mining industry in this county, new discoveries having been made, due mostly to new development in virgin territory, and the outlook is good for years to come. The following mills were operated during the year: Alice, Odell, Ruth, Mattie, Josefson, Black Eagle, Commonwealth, Freeland, Silver Leaf, Santiago, Colorado, Alma Lincoln, Humboldt and Dumont treating around 1,000 tons of mill ore daily and crude ore and concentrates totaling 150 tons daily which were shipped to outside plants.

Gilpin County—This county is one of the oldest producers in the state. The following mills were operated during the year: Chain O'Mines, Gregory Bates, War Dance, Colorado Silver, Gilpin County, Dirigo, Golden Gilpin and Powers, treating from 300 to 500 tons of mill ore daily and crude ore and concentrates totaling from 75 to 100 tons daily which were shipped to outside plants. Below Blackhawk on North Clear Creek Mr. Edward Manion operated a placer project using powerful shovels and drag lines with portable washing and screening devices. Also the Cooley Gravel Company operated a placer project on South Boulder near Pinecliffe, using a powerful shovel and portable washing and screening device. Both projects are handling around 2,000 cubic yards of gravel daily with good results.

Grand County—This is one of the most promising mineral counties in the state considering the small amount of development work that has been done. The section north and west of Jones Pass, for a radius of ten miles square, offers a good field for prospecting. The veins are numerous, strong and well defined fissures. The old mining district of Lulu, located in the northern part of this county, is worthy of investigation. The geology is favorable for ore deposits and the values are mostly silver and lead.

Jackson County—This county is noted for its copper, lead and zinc ores. On account of it being inaccessible from smelters and railroad transportation, its mineral deposits have not been developed as they should have been. The Independence Mountain district shows a large area containing good values in placer gold. The fluorspar deposits are numerous and the spar is of the best quality.

Jefferson County—This county is noted for its large deposits of clay along the foothills and the clay is of the best quality. The nonmetallic mining industry has been very active during the year. The brick plants in Denver get their supply of clay from the clay mines in this county and they manufacture a product from this clay that finds a market in all parts of the world.

Larimer County—The Manhattan mining district, which is located in the western part of the county, shows a number of strong and well defined fissure veins. In some places they form a network of veins or veinlets with marvelous surface showings indicating the existence of rich ore deposits. There are two pilot mills in this district which have been operated part time.

Moffat County—The northwestern part of this county is noted for its high grade copper deposits in and around Douglas Mountain. Due to being inaccessible on account of railroad transportation, it has not been developed as it should have been. In the Timberlake district, in the northern part of this county, there is a large area showing commercial values in placer gold. These deposits have been and are now successfully worked by the use of power shovels and drag lines with portable washing and screening devices.

Park County—The mining activities in this county are in a healthy and encouraging condition. The district around Alma and Fairplay has a past record for producing high grade gold ore and there is every indication that it will continue to produce such ore for years to come as the great mineral belt along the London fault has only been scratched. The following mills were operated during the year: London, London Butte, North London, American, Hock Hocking and Alma Syndicate, treating approximately 600 tons of mill ore daily and crude ore and concentrates totaling 100 tons daily which were shipped to outside plants. There is a large area around Alma and Fairplay that shows commercial values in placer gold, part of which is being successfully worked with power shovels and drag lines with washing and screening devices. Also shallow shafts with bedrock drifting have been very successful. At the head of Buckskin Gulch there has been a large deposit of a good grade of molybdenum ore developed by the Lone Jack Molybdenum Company.

Routt County—The Hahns Peak mining district in this county is among the oldest in the state. On account of it being inaccessible from smelters and railroad transportation, it has not received the attention it deserves. There is a large area around the old town of Hahns Peak that contains good values in placer gold, some of which is in the course of being prepared for operation by the use of power shovels with washing and screening devices.

Summit County—This county has been the scene of new activities due to new discoveries and the reopening of some of the old mines. The Carbonate mill was operated part time during the year. A new mill is under construction at the Saint John mine near Montezuma. This county is noted for its rich and extensive placer gold deposits along the Blue River and small creeks and gulches that are tributary to the upper section of this river. These placers are worked extensively with powerful dredges operated by electric power, each having a capacity of handling 5,000 to 6,000 cubic yards of gravel daily. There are also a number of operations using hydrowater power with sluice boxes. Others are using power shovels with washing and screening devices in the small gulches. All these operations are meeting with good results.

DISTRICT No. 2 by Herrick McLeod

The mines of the Cripple Creek District produced 494,157 tons of dry ore in 1937, which had a gross value of $5,081,718.70.

The Golden Cycle Mill, at Colorado Springs, treated 510,612 dry tons of ore in 1937. The gross value was $5,585,605.16. Cripple Creek District mines produced 475,967 dry tons, or 93.22% of the ore treated in this mill. The average gross value per ton was $10.61. The total gross value of Cripple Creek ore treated at the Golden Cycle Mill was $5,051,504.95. The mines in other camps in the state furnished 34,645 tons which had a gross value of $534,100.67.

Tom Kavanaugh's Mill, on Ironclad Hill, treated 18,190 tons with a gross value of $30,213.75. He mined all the ore treated in his mill.

The gross value of the ore produced in 1937 in the Cripple Creek District exceeded the value of the ore produced in 1936 in the amount of $112,617.00 though the tonnage was less in 1937. The decrease in tonnage is accounted for by the fact that since the Cripple Creek Mill closed down in January, 1937, no ore has been shipped from the dumps of the Stratton-Cripple Creek M. & D. Company mines. The Elkton Mine, a large producer, was put out of business in July by a fire in the shaft which destroyed the timbers from the seventh level down to the drainage tunnel level. New timbers were installed recently to a point below the eighth level and the mine is now operating to that level. It is safe to say that the tonnage of new mine ore produced in the District was about the same for 1937 as for 1936.

A great amount of development work has been accomplished during the year. The Ajax shaft has been sunk 500 feet below the twenty-first level. The bottom of the shaft is now 600 feet below the level of the Roosevelt Deep Drainage Tunnel. A large station has been cut at the twenty-sixth level—a 70-ton capacity pocket cut out at the shaft—pumps have been installed, and a crosscut well started to cut the Mohican and Newmarket veins. A concrete bulkhead and steel water door have been installed in the crosscut. The Dolly Varden shaft has been sunk from the surface to a depth of 600 feet. Drifting is being done on a strong vein from which ore is being shipped. On the Molly Kathleen, after sinking 300 feet in the shaft, a crosscut has been driven over 1300 feet to a point under the winze in the Sangre de Cristo Tunnel. A remarkable record for safety has been made in these mines. Including the winze below the twenty-first level of the Ajax over 1600 feet of sinking has been accomplished without one serious accident.

The Vindicator-Cameron Tunnel is a new development started this year. The tunnel is being driven from the 2,000 foot level of the Vindicator and has reached a point about 300 feet from the Vindicator shaft. It will be driven under the top of Bull Hill to cut the Mitchell vein of the Cameron Mines Company, a total distance of 5,500 feet.

The Strong Leasing and Mining Company's operation at the Strong mine shaft, through which the Strong, Jefferson and Mary Cashen properties are worked, is a good example of how real mining should be done. During the year this company has erected a new compressor building, a new engine house, installed a new hoist, 2 new compressors, new motors, 10 new machines and other equipment. Drifting has been done to the extent of 2,932 feet and 118,430 cubic feet of stoping have been done, and a tonnage of ore produced which had a gross value of $60,948.81.

An unusual number of shipments of high grade ore was made during the year. One carload shipment from the Theresa Shaft of the United Gold Mines Company, which was mined by Olson and Company, working under a split-check lease, gave returns of about 16 ounces gold per ton. The gross value of this shipment was about $16,000.00.

The prospect is bright for a good year in 1938. The Queen mine, which has lain idle for a year, has resumed operation. The Forest Queen mine, which has been idle for some time, has also resumed operation. Both mines are shipping. The Cresson, the United Gold Mines Group, the Stratton Cripple Creek M. and D.

Company's properties and many other mines in the district, are making the usual steady production.

In Custer County the most important mining operation was conducted by Stroehlke and Henning on the Defender claim. A production of over 600 tons of lead carbonate ore was made in the last few months of the year. The average gross value was $27.00 per ton. H. O. Womack and associates are sinking a shaft on the Comstock near Querida. They have reached a depth of 62 feet. Wm. Kline and associate are sinking a shaft about a mile northeast of Silver Cliff. They have reached a depth of about 90 feet. Vermiculite is being mined not far from Querida and on a school section about 6 miles north of Westcliffe.

The production of limestone, dolomite, gypsum, granite, fire clay, and silica rock and sand in El Paso, Douglas, Fremont, Huerfano and Pueblo counties will equal, if not exceed, production of 1936. The most important development of the year in nonmetallics is the increase in production of feldspar. At least 12 new quarries have been opened this year. They are located in Custer, Douglas, Fremont, Park and Teller counties. The production of feldspar in these counties will total 60,000 tons. A large production of vermiculite is being made in Gem Park in Fremont County.

The Ideal Cement plant at Portland, Colorado, and the brick manufacturing plants in El Paso, Fremont, Las Animas, Otero and Pueblo counties, have all had a prosperous year.

DISTRICT No. 3 by R. J. Murray

An inspiring and noticeable feature of the year 1937 was the vast increase in the number employed in the metal mines and their greatly augmented tonnage of ores. New records were made in the output and marketing of molybdenum, fluorspar, tungsten, feldspar, vanadium and other minerals. Many mines that were considered unprofitable to operate since the crash, were re-opened during the year and today are adding to the production of ores and the employment of labor. Higher prices for all metals are indicative of the very noticeable rise in the production curves. We have witnessed the re-opening of many gold and silver properties, some of which records show have been inactive for more than two score years. This increased confidence, together with the decrease in the unemployment situation, was strikingly portrayed in the metal mines for the year 1937.

Chaffee County—A summary of the activities in this county consisted in nearly two thousand tons daily of lime rock being shipped from the Colorado Fuel and Iron Corporation's quarry at Monarch, the employment of a large force of labor at the quarry and the additional train crews necessary to move this tonnage. A few old mines in this section were reopened during the year. The activities in fluorspar mining have shown a decided increase and prospectors and engineers are combing the county for further finds.

The Romley and St. Elmo districts have shipped fair tonnages of ores. Some development work, together with the construction of a 100-ton mill and minor operations on several properties were carried on north of Buena Vista; also lode mining and small placer operations at Granite. And last but not least there was a marked increase in the output of Salida's famous monumental granite from its various quarries.

Conejos and Costilla Counties—Reports have come in which are encouraging on small strikes by prospectors in these counties.

Eagle County—Eagle County with its famous Empire Zinc mines, and incidentally one of the largest employers of labor in the state, has for the past year, day in and day out, shipped 1200 tons of iron sulphides to Utah smelting plants. An immense amount of timber is required in the extraction of their ores. A large working force of sawmill hands, loggers, truckers, etc., is necessary to supply this timber. Thousands upon thousands of tons of waste rock are also mined through caving and development work and this rock is used in gobbing and back filling while extracting the ores. A large amount of new work is planned and carried out each year. The space alloted prevents going into further detail on this big tonnage producer and employer of labor. Several small operations in Belden Canyon in this county are consistent shippers of ores, some of which carry a very high gold content. A small amount of mining is being done near McCoy.

Garfield County—Some minor operations and prospecting have been carried on in the vanadium section of this county, while Holly Sugar Corporation has during the year shipped a large tonnage of lime rock from its Glenwood quarry to their various sugar refineries. Incidentally, drilling for oil is being done on a large scale by the Continental Oil Company on Divide Creek, where one of several contemplated wells is being put down while another well is being drilled near Carbondale by eastern interests.

Gunnison County—At Crystal, Avalanche and Coal Basin small mining operations have been carried on during the year. The Yule Colorado Marble quarry has enjoyed a prosperous year and has steadily employed a large force of men at their quarry and dressing plant. Marble from this quarry was used in building the addition to the United States Mint at Denver, while other shipments were being sent to many places in the United States for interior and exterior decorating and building purposes. This tonnage is hauled over the company's own railroad from Marble to Carbondale.

Lake County—An indication of activities in this county can best be exemplified by the increased population and consequent lack of housing at Leadville, and can be attributed to the vast number employed at the world's largest molybdenum mine at Climax, where the payroll for the year past shows an average of 2,000 employed. Approximately $850,000 to $1,000,000 have been expended by the company on the construction of new homes for their employees and in laying out streets. One hundred twenty-five new homes have been completed during 1937 and are occupied by company employees, 25 homes were erected and streets graded during 1936 at a cost of $150,000.

At the present time there are approximately 200 homes adjacent to this mine, all completely modern throughout—homes that would do credit to any street in any city in this country. A school to accommodate 300 pupils is now ready for occupancy. An auditorium and recreation hall, equipped for moving pictures, has been completed during the past year, which has a seating capacity for 2,000 or more people, and a hotel with dining room and living quarters equal in appearance and comfort found anywhere. Pages could be written on this vast enterprise with the story only half told; a daily minimum tonnage of 10,200 tons to a peak of 13,200 tons has been mined and milled during the year past. This company maintains a safety inspection force under the very capable supervision of James Richardson.

In Leadville proper, operations have been carried on on a number of properties, some of which are the Allright, Adelaide, Dolly B, Valley, Famous, Ollie Reed, Fortune, Ibex, Triumph, Venir, Killarney Group, South Winnie, Seventy Six, Forbes Tunnel, Yak Tunnel and mill, Matchless, Big 4, Fanny Rawlins, Mayflower, First National, Liddia, Chippewa, Gallagher, Breece No. 1 and others equally deserving of special mention. Thousands of tons of ore from various dumps are being shipped to the Leadville Metals Company mill, the Arkansas Valley plant at Leadville, and other out of state smelting plants. A new 150-ton mill is under construction and when completed will operate on sulphide and oxide dumps which are said to contain more than a million tons of low grade mill dirt. The Leadville Metals mill is running through 800 tons of dump ores daily. The Bryant mill has operated on 100 tons daily of Resurrection ores, mined and transported through the Yak tunnel. The First National mill is under construction.

Several placer operations have operated near Leadville with good results. In the Twin Lakes and Granite districts of this county several small properties are actively operating.

Leadville's well known productive area with its known abundant ore bodies is still under water. The drop in metal prices during the depression caused a cessation of pumping in an area which has produced 90 per cent of Leadville's grand total of more than $550,000,000.

The reclaiming of these large ore bodies that are now under water would be a worthy project for the Government to undertake and complete by a drainage tunnel, which in the end would pay big returns on the money invested and would rejuvenate one of the most famous and productive mining districts in the world.

Saguache County—Activities in this county consisted mainly of the re-opening of the Rawley mine, where more than 800 tons monthly of silver, lead and zinc sulphides are being shipped. In addition to the above, there are several smaller operations under way in the Bonanza district, among them mines that have been inactive for years.

The district along the Sangre de Cristo mountains, south of and including Crestone, has had a large quota of prospectors exploring the mineralized areas along the range. Several minor operations continued throughout the year, while milling and mining operations were conducted on the Independence Group. A new mining venture in an old mining district this year got under way on the Columbia Group; a shaft long idle has been re-opened and fully equipped mechanically; also, boarding and bunkhouses, offices, storehouse and two very modern homes have been erected.

The Hall turquoise mine, west of Villa Grove, is a consistent producer of turquoise said to be the equal of any found in this country. The demand for this stone for jewelry purposes far exceeds its production.

Mineral County—Creede, the county seat, dependent on the price of the white metal, has had a prosperous year, and has been a consistent producer of silver ores, coming from a number of operations. The year has seen the resumption of activities in the Sunnyside district in this county. The bentonite mine has shipped a fair tonnage of clay during 1937, besides keeping ahead on development work. The fluorspar mine at Wagon Wheel Gap has, during a large part of the year, mined and milled a large tonnage of spar for the company's steel plant at Pueblo.

A bright picture for Creede with its immense low grade silver ores will be the broad and beneficial effect the new 150-ton mill recently completed will have on this camp. The erection of this mill was made possible through the far-sightedness and knowledge gained by Mr. Thomas Patterson Campbell, the financial head of this operation. To him good luck and best wishes.

Rio Grande County—The Summitville Consolidated Mines, Inc., operating on its large group of claims, has enjoyed a very successful and prosperous year—their mines and mill employing a large force of labor. A big raise has been completed from the Reynolds tunnel, adjacent to the mill, and is connected with the upper workings of the various mines being worked. This raise will facilitate the handling of all ores mined in the higher tunnels and will eliminate the hardships encountered in getting supplies to the Iowa and other tunnels at an elevation of nearly 12,000 feet. This, in effect, will centralize their working force at one camp much lower, while the necessary supplies can be delivered by an underground hoisting arrangement. This camp can boast of a postoffice, schools, hospital, stores and numerous homes for their employees. Supplies are hauled in large trucks from Monte Vista, a distance of 47 miles.

Mining activities on a small scale were noticeable at Platoro, Stunner and Jasper. New Federal roads have been completed to these last mentioned camps where formerly they were nearly impassable to any vehicle other than horse and wagon. The accessibility of reaching this district will ultimately have a beneficial effect on mining in these formerly isolated ghost camps.

Pitkin County—Since the advent of the pegged price on silver, Aspen and its contiguous mining districts have enjoyed their share of prosperity. This camp is another victim of what the depression and the drop in metal prices, noticeably that of silver, did for mining. Pumps were pulled and today vast bodies of ores are buried under hundreds of feet of water.

The Midnight mine and mill have kept their wheels turning for the past year and have been consistent shippers of concentrates, together with monthly shipments of crude ores. A new road graded for trucking, where formerly the only means of haulage was by horse and wagon over a precipitous and almost impassable road, has greatly reduced the cost of haulage from this mine.

The Metals Recovery mill, a new 1937 venture, has operated successfully on dump ore from the Mollie Gibson and other dumps containing fair silver contents. The mill is processed by flotation and concentration and is 100-ton capacity and will no doubt aid in the restoration of employment and mine activities in and about Aspen.

The large holdings controlled by D. P. Rohlfing, most of which are under sub-lease, are steadily shipping silver lime ores to the Arkansas Valley plant at Leadville. Mr. Rohlfing is supervising development work and making an investigation of geological conditions in a great many of the old properties formerly worked by the owning companies.

The Porphyry Mountain Gold Mines Company, the Highland tunnel, the Hope tunnel, and others in this district, have operated on a small scale.

An oil well is being drilled at Coal Creek and has reached a considerable depth. A Mr. George Summers of New York, with summer headquarters at Glenwood Springs, is the active manager of this operation.

DISTRICT No. 4 by Dan C. McNaughton

The mining industry in District No. 4 has shown a steady, healthy growth in 1937, practically all of the mining counties of the district having experienced increased activity during the year. While considerable credit must be given to the prospector and small operator who investigate opportunities with a minimum of capital outlay, the real showing is made by large companies with considerable financial backing who employ trained men to prospect and sample in a scientific manner, develop small mines or rehabilitate old properties, and carry on operations according to latest approved engineering methods.

There are many more properties lying idle in the district which, if properly handled by skilled engineers, would make a profitable investment for capital at this time. Increased milling facilities have been of great importance in developing mining properties in this district, and still more custom mills would further improve the situation. A summary of the activities of this district follows:

Dolores County—This section has shown increased activity during 1937, with several operating lode mines. The St. Louis resumed operations early this summer with a program of prospecting and development. A new compressor has been installed at the Rico-Argentine, a famous old property which resumed operations early in the season. The Emma mill was modernized last year and has been running since early in January. It handles about 100 tons of ore a day. There are several small placers in the county and considerable prospecting is being done.

Gunnison County—Mining is experiencing a revival in this county with several operating lode mines and placers and much prospecting and sampling. Much of the activity is of an exploratory nature. The Carter mine and mill near Ohio City continues to be a steady producer. The Camp Bird mine at Bowerman in the Box Canyon mining district resumed operations early this year; also mines in the White Pine and Spring Creek districts are active, as well as the Gold Cup in the Tin Cup district, the Cortland and Chicago in the Gold Brick district, the Vulcan-Good Hope in the Domingo district, and various other lode operations and placers.

The Colorado Molybdenum Company has operated a 35-ton custom mill at Pitkin.

Dr. Glenn L. Williams has reported several successful laboratory tests by his patented "Electronic" method of treating ores and is constructing a 150-ton plant which will use this same process.

Some new compressors were installed and several new buildings have been erected and old buildings repaired in this county. There has been considerable exploration of ore deposits containing molybdenum and beryl.

Hinsdale County—This county came to the front in 1937 with many properties operating. Sampling and exploration work of all kinds have been carried on throughout the year.

The Gallic-Vulcan installed modern flotation equipment in their 100-ton mill. The Ute and Ulay resumed operations early this summer and milled their dump ores in their modern 100-ton flotation mill. The Golden Wonder and other mines have carried on a sampling and exploration program and expect to start production early in 1938. Several other properties have shipped ores in various amounts.

Also of interest to this county is the examination and sampling of the famous Golconda property by H. G. Burgess. It is expected that this property will resume operations early in 1938. Mr. Burgess has also examined, and is interested in other properties in this county.

La Plata County—Mining activity has increased in this county during the past year. The Gold King, Pioneer Gold Producers' mill and Idaho mine, Lady Eleanora and May Day operated and milled ores during the year. The Pioneer Gold Producers, Inc., increased the capacity of their custom mill from 25 tons to 40 tons, and have tested ores from various properties in the county with a view to building a larger custom mill in the near future. Of great interest to La Plata County is the prospecting and exploration of several other properties, many of which will be producers in 1938. There was considerable placer mining, both large and small operations, along the Animas River. The Amparo Company continued to develop its May Rose group of mines.

Mesa County—The Copper Rivet Mine in Gateway mining district was operated this year. Some placer mining was carried on and considerable prospecting and exploration work was done which will undoubtedly result in increased production in 1938.

Montezuma County—The continued prospecting and exploration of properties in this district have shown gratifying results. New buildings have been erected and new machinery installed by the Red Arrow Gold Corporation in California mining district. This mine is a steady producer and shipper of gold and silver. The Thunder mine was operated by Charles Starr. The Barr-Menefee property is sampling and developing a rich platinum, silver and gold vein and has built a new boarding and bunk house.

The San Juan Milling and Refining Company is constructing a 150-ton cyanide and flotation custom mill at East Mancos. Various other small properties were developed and some small scale placer mining was done in this district during 1937.

Montrose County—The mining outlook for this county is very encouraging. This year the U. S. Vanadium Corporation has increased the capacity of its reduction plant from 120 tons to 250 tons per day; also increased the capacity of the power plant and added several new dwelling houses to the town of Uravan. The largest percentage of this company's carnotite ores is produced in Long Park, Vixen mining district. They are also prospecting and developing several properties in the surrounding carnotite district. They own and operate their own coal and salt mines.

In the Paradox mining district, leasers operated both the Cashin and Denver mines. Prospecting and development work have been done on different small properties and several placer mines have operated at various points along the Dolores River.

Ouray County—This county, of outstanding importance to District No. 4, has experienced increased activity in both large and small operations during 1937. About 20 lode mines are active in this county. The King Lease on the Camp Bird, Limited, has operated its mine and mill continuously the past year.

Early this season the San Juan Metals Corporation started a building program of interest to this mining section, at the Treasury Tunnel. A new 300-ton modern flotation milling plant is completed and in operation, a new large three-story bunk house, large two-story mess hall, compressor house, and various other buildings used for different purposes were recently completed. The Treasury Tunnel has been electrified and new track has been laid throughout the tunnel and two 4-ton trolley locomotives are used for haulage purposes.

The Callahan Zinc-Lead Corporation recently acquired the Barstow group of mines in this section. The San Juan Metals Corporation expects to drive a 100-foot crosscut to this property from their Treasury Tunnel.

The G. A. Franz interests have operated several mines throughout the year and treated the ores in their Banner-American mill.

The Revenue Tunnel carried on an extensive development program this past year.

William M. Cutler is developing his Mineral Farm group extensively. New buildings and new compressor have been added to this property.

Considerable prospecting and development of small properties have been done in this county, together with some small placer operations.

San Juan County—In 1937 this county continued to lead in this district, both in properties operating and number of men employed. About 36 lode mines are operating under various stages of development. Outstanding among them are the following:

The Shenandoah-Dives Company has operated continuously during 1937 and has milled 199,000 tons of their own ore and 18,000 tons of custom ore. The Shenandoah-Dives ores are practically free from zinc, but custom ores from some sections of the county contain various percentages of zinc. As the company ores were milled, together with the custom ores, the zinc question became a problem. Early this summer the company officials, together with Frederick A. Brinker, Company Consultant Metallurgist, of Denver, satisfactorily solved the problem. After considerable thought and experimenting, they found that the zinc ores could be stored in bins and milled from 8 to 16 hours every other day. The selective reagents are used until the zinc concentration is complete. The selective reagents are then shut off and the regular milling practice continued. They also found that in storage most of the heavy lead and zinc sulphide ores settle to the center and bottom of the ore bins which materially aids the process of separation. This practice has eliminated the zinc penalties at the smelter and they are now shipping a 50% zinc concentrate to the zinc smelter at Amarillo, Texas.

The results achieved by this company offer additional evidence that each mining county should have at least one custom mill, properly equipped, to treat the various ores in that particular section. This branch of the mining industry should offer a splendid opportunity for investment of capital.

Another important activity of the Shenandoah-Dives Company is the driving of a crosscut to explore the Silver Lake and Iowa Tiger group. They have progressed 3200 feet to date.

Another outstanding property is the Sunnyside Mining & Milling Company at Eureka. It is a subsidiary of the U. S. Smelting, Refining and Mining Company of Boston and resumed operations about the middle of June after a shutdown of seven years. Considerable money has been spent in revamping mines, mills and tramways. The mill is a modern selective flotation plant and has a capacity of 1200 tons per day. They are now treating about 700 tons per day. However, they are gradually increasing production and expect within a short time to reach the full capacity of the mill.

The Gold Hub carried on an extensive program of development the past year in the course of which they opened up veins of ore carrying gold, silver, copper and lead; also a quantity of tungsten. They started early this summer to construct a 50-ton combined flotation and concentrating mill which is now completed and in operation. They have also reconstructed old buildings and done other work necessary to the mining and milling of their ores.

The Treasure Mountain in the Eureka mining district is another property of interest to the mining industry. This property has carried out a developing and building program started last year. A new boarding and bunk house has been completed, also a compressor house and blacksmith shop. This year they constructed a truck road three miles in length, of which 1½ miles leads to the Santiago tunnel and the balance to other properties of the group. A program of development has been carried on in the various company holdings. The Santiago tunnel will be continued and other holdings in this vicinity will be prospected and sampled.

The Pride of the West and Old Green Mountain worked continuously during the year. The Mystery Gold Mining Company continues to develop its several holdings. Various leasers are operating on different parts of this property. The Golden Horn mine resumed operations early this season and repaired about 1½ miles of transportation road to connect the Golden Horn mill with the South Mineral county road and two miles of trail were rebuilt and widened from the mill to the mine. A systematic program of development is being carried on. It is expected that production will start early in 1938.

Compressors were installed at the Little Fanny, Treasure Mountain, Golden Horn, Highland Mary, Jennie Parker, Wexford and Champion mines.

The Ridgway mine in the Eureka mining district completed the construction of a 5,000-foot jig-back tram connecting the mine with the county road in Maggie Gulch. Operations in the mine will start at an early date. They are now shipping dump ores to the Shenandoah-Dives custom mill. Other properties that ship to the Shenandoah-Dives custom mill include the Little Fanny, Champion, Ezra R., Jennie Parker, Highland Mary, Pride of the West, Old Green Mountain and Mystery Gold. Many other properties shipped considerable crude ore to the smelter. Prospecting and developing still continue in this district.

San Miguel County—This county continues to be active in mining and milling gold, silver and other metals. The Veta Mines, Inc., formerly the Smuggler-Union, has operated mines and mill continuously throughout the year. This company has carried out an extensive program of development during 1937. Of special interest is the 300-foot shaft sunk in the Pennsylvania tunnel. This shaft has been equipped with new electrically driven hoist, pumps, etc. Drifting toward the vein is the order of business at this time. Besides their development program, they are carrying on an active campaign of retimbering, repairing pipe lines, etc., in various parts of the mine. Forty pound rail is being laid throughout the Pennsylvania tunnel which is the main haulageway. Considerable diamond drilling was done this year in prospecting different parts of the mine. There are also several sets of leasers operating the upper old workings of this mine.

The Alta-St. Louis completed a 100-ton modern flotation mill early this season which is operating steadily. Considerable development was done on this property the past year.

The North Continent Company, in the Klondyke mining district, is operating its mines and mill on its vanadium and uranium ores.

The Butterfly Consolidated, in Iron Springs and Trout Lake mining districts, is operating its mines and mill and has carried on an extensive program of development during the year. This company has also acquired the Silver Bell property which is located in the Ophir district. Development will start on this group at an early date and connections will be made with the Butterfly Consolidated properties.

The Carbonero, in the Iron Springs mining district at Old Ophir, resumed operations and is carrying on an extensive program of development and expects to start milling operations early in 1938.

There are many other smaller properties shipping various amounts and operating pilot mills. There are several placer operations, both large and small, being carried on in this county.

Several properties that have been idle for many years have been prospected and sampled this year and it is reasonable to expect that they will become shippers in 1938.

Practically all the mills operating in District No. 4 now have provision for tailings disposal. The county commissioners of all mining counties in this district are cooperating with the mine operators in building and repairing roads and trails. It is my belief that 1938 will show still greater increase of activity throughout the district.

HISTORICAL NOTE

The Bureau of Mines of the State of Colorado was established by an act of the Tenth General Assembly, approved March 30, 1895. This act repealed a previous act creating an ''Inspector of Metalliferous Mines,'' which was passed in 1889. The Bureau of Mines law established the office of Commissioner of Mines, provided for in the State Constitution, and charged him, among other things, with the supervision of metal mine inspection and the enforcement of laws relating to safety and health in metal mines. Subsequently this was broadened to include ''any ore mill, sampling works, smelter, metallurgical plant, rock quarry, clay pit, railroad tunnel, rock excavation or mine of whatsoever kind or character except coal mines.'' The Commissioner of Mines was also charged ''as he has opportunity and means,'' to collect mineral specimens and exhibit the same, to collect books relating to mining and geology, to collect and preserve data regarding mining methods, mining costs, milling, metallurgy, geology, mineral deposits of all kinds, and so on. Aside from the purchase of the Elsner collection of minerals, very little ''opportunity and means'' has been granted to the Commissioners for anything except inspection work. The present activities of the Bureau of Mines are treated elsewhere in this report.

COMMISSIONERS OF MINES

Harry A. Lee	May 11, 1895-May 10, 1903
E. L. White	May 10, 1903-May 10, 1907
T. J. Dalzell	May 10, 1907-May 10, 1911
T. R. Henahen	May 10, 1911-May 10, 1915
Fred Carroll	May 10, 1915-June 1, 1919
Horace F. Lunt	June 1, 1919-June 1, 1923
John T. Joyce	June 1, 1923-June 1, 1927
John T. Joyce	June 1, 1927-June 1, 1931
John T. Joyce	June 1, 1931-June 1, 1935
John T. Joyce	June 1, 1935-

PUBLICATIONS OF THE BUREAU OF MINES

BULLETINS

Bulletin No. 1, Recommendations for Safety Appliance in Mining, Harry A. Lee, Commissioner of Mines, 1896.

Bulletin No. 2, Precious Metal Production for the year 1898, Harry A. Lee, Commissioner of Mines, 1899.

Bulletin No. 3, Mining Laws, Relative to Bureau of Mines Precious Metal Production, Harry A. Lee, Commissioner of Mines, 1899.

Bulletin No. 4, Precious Metal Production, Harry A. Lee, Commissioner of Mines, 1901.

Bulletin No. 5, Precious Metal Production, Harry A. Lee, Commissioner of Mines, 1902.

Bulletin No. 6, Regulations Relative to the Construction, Equipment and Operation of Metalliferous Mines, Mills and Metallurgical Plants, Recommendations and Mineral Production for 1905, E. L. White, Commissioner of Mines, 1906.

Bulletin No. 7, Federal and State Laws Relating to Mining, Fred Carroll, Commissioner of Mines, 1916.

Supplement to Bulletin No. 7, Mining Laws Enacted by the Twenty-first General Assembly, Fred Carroll, Commissioner of Mines, 1917.

Supplement No. 2 to Bulletin No. 7, Amendments to the Mining Laws Enacted by the Twenty-second General Assembly, Horace F. Lunt, Commissioner of Mines, 1919.

Supplement No. 3 to Bulletin No. 7, Amendments to Laws Relating to Mining Enacted by the Twenty-third General Assembly, Horace F. Lunt, Commissioner of Mines, 1921.

Supplement No. 4 to Bulletin No. 7, Amendments to Laws Relating to Mining Enacted by the Twenty-fourth General Assembly, Horace F. Lunt, Commissioner of Mines, 1923.

Bulletin No. 8, The Oil Shales of Northwestern Colorado, Horace F. Lunt, Commissioner of Mines, 1919.

Bulletin No. 9, Mine Safety Standards, Horace F. Lunt, Commissioner of Mines, 1920. Out of print, now embraced in Bulletin No. 11.

Bulletin No. 11, Federal and State Laws Relating to Mining, John T. Joyce, Commissioner of Mines, 1931.

REPORTS

Report of Bureau of Mines, Colorado, from its establishment in May 1895, to November 30, 1896, Harry A. Lee, Commissioner of Mines, 1896.

Report for the Year 1897, Harry A. Lee, Commissioner of Mines, 1898.

Report for the Year 1898, Harry A. Lee, Commissioner of Mines, 1899.

Biennial Report for the Years 1899-1900, Harry A. Lee, Commissioner of Mines, 1900.

Biennial Report for the Years 1901-1902, Harry A. Lee, Commissioner of Mines, 1903.

Biennial Report for the Years 1903-1904, E. L. White, Commissioner of Mines, 1905.

Biennial Report for the Years 1905-1906, E. L. White, Commissioner of Mines, 1907.

Biennial Report for the Years 1907-1908, T. J. Dalzell, Commissioner of Mines, 1909.

Biennial Report for the Years 1909-1910, T. J. Dalzell, Commissioner of Mines, 1911.

Biennial Report for the Years 1911-1912, T. R. Henahen, Commissioner of Mines, 1913.

Biennial Report for the Years 1913-1914, T. R. Henahen, Commissioner of Mines, 1914.

Biennial Report for the Years 1915-1916, Fred Carroll, Commissioner of Mines, 1916.

Biennial Report for the Years 1917-1918, Fred Carroll, Commissioner of Mines, 1919.

Annual Report for the Year 1919, Horace F. Lunt, Commissioner of Mines, 1920.

Annual Report for the Year 1920, Horace F. Lunt, Commissioner of Mines, 1921.

Annual Report for the Year 1921, Horace F. Lunt, Commissioner of Mines, 1922.

Annual Report for the Year 1922, Horace F. Lunt, Commissioner of Mines, 1923.

Annual Report for the Year 1923, John T. Joyce, Commissioner of Mines, 1924.

Annual Report for the Year 1924, John T. Joyce, Commissioner of Mines, 1925.

Annual Report for the Year 1925 was fully prepared but because of lack of funds was not printed. The manuscript is on file in the office of the State Bureau of Mines.

Annual Report for the Year 1926, John T. Joyce, Commissioner of Mines, 1927.

Annual Report for the Year 1927, John T. Joyce, Commissioner of Mines, 1928.

Annual Report for the Year 1928, John T. Joyce, Commissioner of Mines, 1929.

Annual Report for the Year 1929, John T. Joyce, Commissioner of Mines, 1930.

Annual Report for the Year 1930, John T. Joyce, Commissioner of Mines, 1931.

Annual Report for the Year 1931, John T. Joyce, Commissioner of Mines, 1932.

Annual Report for the Year 1932, John T. Joyce, Commissioner of Mines, 1933.

Annual Report for the Year 1933, John T. Joyce, Commissioner of Mines, 1934.

Annual Report for the Year 1934, John T. Joyce, Commissioner of Mines, 1935.

Annual Report for the Year 1935, John T. Joyce, Commissioner of Mines, 1936.

Owing to lack of funds the 1936 Annual Report of the State Bureau of Mines was not published.

At the time this report goes to press, there are available for distribution copies of the Annual Reports for 1921, 1922, 1926, 1928, and 1932. The 1929, 1930, 1931, 1933, 1934 and 1935 Annual Reports are out of print. The price of Bulletin 11, "Mining Laws of Colorado," is 50 cents; all other available publications are free. The publications not mentioned in this paragraph are exhausted, but copies may be consulted in many of the public, state and college libraries throughout the country.

Note—The Colorado Geological Survey has published a number of geological reports and maps, a list of which may be obtained from the head of the Geology Department of the University of Colorado, Boulder, Colorado.

THE VALUE OF STATE INSPECTION IN LESSENING MINE ACCIDENTS

(Attention—Mine Operators)

In the years 1936-1937 I regret very much to be compelled to report that there was quite an increase in accidents, fatal and otherwise, in number as well as in proportion, in the metal mines of Colorado. While I have not the figures for the past two years on which to base a definite statement, I believe that on general averages it will exceed that of any other state in the Union for those years. This is a deplorable record, due largely, however, to inexperience and carelessness upon the part of employees and also in several cases upon the management, especially in the resumption of operations for the recovery of old mines or parts of operating mines that have been idle for years and are in very dangerous condition.

The recurrence of such accidents can and should be overcome by alertness on the part of the management and employees and by strict observance of the orders of the Commissioner and the inspectors for the enforcement of our safety laws and departmental regulations, instead of their suppression by a wilful and, in many cases, utter and insolent disregard of such orders and recommendations. It must be remembered that the mine inspector cannot be present at all mines at all times.

Life is the most precious of all man's possessions and the utmost effort on the part of the state, industry, and the individual is justified in the conservation of the lives and unimpaired wellbeing of the worker. The State of Colorado in 1908 recognized its responsibility for the safety of the mine worker by the enactment of statutes covering the establishment of a department to be known as the Bureau of Mines of the State of Colorado, with a commissioner and inspectors and delegating to this department as one of its principal duties the examination of mines, mills and quarries, as to safety and health conditions. This department has the power to order corrected, under penalty of heavy fine, any and all dangerous conditions found.

The Colorado Bureau of Mines, therefore, is vitally interested in the lessening of accidents in mines. Its inspectors examine into safety conditions at mines, mills, smelters and quarries and make a diligent investigation of fatal and serious accidents and advise, where possible, means of preventing a repetition of such accidents. Reports on all mine, mill, smelter and quarry accidents, which are furnished by the operators to the State Industrial Commission are studied and compiled for publication in the annual report of this department. There were recently compiled in this department statistics on all metal mine accidents in Colorado for the present and past three eight-year periods, the summary of which is appended.

These figures demonstrate that the lessening of accidents in Colorado metal mines, as in those of other states, requires constant and united effort on the part of mine operators and miners and continued inspection and guidance by an adequate force of state mine inspectors.

The value of state inspection in lessening mine accidents is difficult to enumerate in units only of dollars and cents. It has a value to the industry and the public far greater than can be measured on a direct cost basis. We cannot usually say in any particular mine that a certain number of lives have been saved by the righting of recognized dangerous conditions or by safer equipment and practices, but we do know that taking the state or country as a whole dangerous conditions, unsafe equipment, and unsafe practices in mines will each year take their toll of life and suffering and that the righting of such conditions and practices will inevitably save life. We know at the end of each year how many lives have been lost in our mines but we cannot definitely say how many lives have been saved by inspection service; that many lives are thus saved is self-evident, which is borne out by the figures mentioned. State inspection service results not only in the correction of dangerous conditions and practices but it also spurs the mine operator to increased thought and effort toward safety and the miner to increased carefulness. Both miner and operator are reminded by these inspectors that the state has a very definite interest in both the personal security of the miner and the continued successful operation of the mine. Also, the inspector through his visits to numerous mines and through information collected by the department is able to suggest numerous measures which make toward safer and more economical mine operation.

Summarizing, a state mine inspection department is of very definite value in reducing accidents, promoting the safety and welfare of miner and operator, and in assisting in the successful operation of mines. A state mine inspection department can only operate with proper efficiency and success in reducing accidents if it has an adequate number of inspectors furnished with funds adequate for regular inspections and if it has the cordial and hearty support of the mine operator, the miner, and the public. The Colorado State Bureau of Mines pledges its continued effort toward the reduction of mine accidents and believes that in this most important work it will have, as it has always had from the

Colorado mine operators, continued and even more hearty support from that highly important factor in the prosperity of our state.

SUMMARY

Four 8-year periods on the basis of 100,000 shifts.

From 1906 to 1914, inc., 23,100,000 shifts were worked, 511 men were killed, ratio per 100,000 shifts	2.22
From 1915 to 1922, inc., 25,468,000 shifts were worked, 342 men were killed, ratio per 100,000 shifts	1.35
From 1923 to 1930, inc., 16,148,154 shifts were worked, 167 men were killed, ratio per 100,000 shifts	1.00
From 1931 to 1937, inc., 13,664,693 shifts were worked, 135 men were killed, ratio per 100,000 shifts	0.987

FATAL ACCIDENTS

Underground

January 20, Charles Enlow, of Gilman, age 40, unmarried, motorman, employed by The Empire Zinc Company, Eagle County, was caught between a post and battery box on motor. In changing electric battery he overlooked turning off control and the brake could not hold the motor with new battery installed. He died from effects of injuries January 22. Carelessness of injured and company by not having additional space between guard rails and track.

February 6, John Albert Ward, of Creede, age 26, unmarried, mule driver, employed by Wilson Leasing Company, Mineral County, was caught between chute and cars and killed instantly. Negligence and forgetfulness on part of injured.

February 26, Thomas C. Rawlinson, of Alma, age 25, married, miner's helper, employed by London Butte Gold Mines Company, Park County, was killed instantly by premature explosion due to defective fuse. Purely accidental as safety rules observed and complied with by operator.

March 8, Harry Gilbert Hoskins, of Ohio, Colorado, age 25, unmarried, drillman, employed by Carter Mines Company, Gunnison County, dug into missed shot or unexploded primer in the muck pile from the previous round of holes and was killed instantly by explosion. Wholly accidental.

March 16, Eugene Coleman, of Climax, age 36, married, loader, employed by Climax Molybdenum Company, Lake County, fell from finger bar while trying to loosen rock jam in chute and was hit as the "hang-up" came down, dying about two hours later. Failure to use safety devices and obey safety rule.

March 25, John Fenton, of Climax, age 31, married, slusher operator, employed by Climax Molybdenum Company, Lake County, was pinned between overturned hoist and I beams while attempting to move scraper quick enough to jar muck covering it. He died March 28 from results of injuries. Failure to use safety device and obey safety rule.

April 14, Harvey Rickman, of Climax, age 23, unmarried, loader, employed by Climax Molybdenum Company, Lake County, was taking piece of timber out of chute when rock commenced to run down chute, hitting the timber which threw employee against post, pinning him there. Death was instantaneous. Unavoidable accident.

April 22, Edwin Rogers, of Telluride, age 30, married, miner, employed by Veta Mines, Inc., San Miguel County, was killed instantly by piece of timber falling 250 feet down manway in a raise or winze connecting lower levels and striking him on head. Evidently caused by failure to use landing device at top of raise.

May 4, Frank Terlip, of Salida, age 36, unmarried, miner, leasing from George E. Collins and Associates, Dillon Lease, Chaffee County, fell approximately 130 feet. Body was recovered 16 hours later. Was having trouble with his light and it was thought he did not see hole beside track. Failure to use safety devices and lack of safety devices. Hole should have been guarded by plank or railing.

May 10, Joe McKinney, of Fairplay, age 21, unmarried, mucker, employed by H. L. Sinclair, in Barcoe Tunnel, Park County, was instantly killed by explosion of dynamite. Carelessness of injured and lack of observance of safety rules on part of deceased.

June 10, Stanley Sandercook, of Alma, age 32, unmarried, timberman, employed by The London Mines and Milling Company, Park County, was instantly killed by fall of rock. Evidently caused by miscalculation of suspending power of spiling which gave way under pressure of heavy weight of muck in chute.

June 21, John Reynolds, of Alma, age 27, married, miner, employed by London Butte Gold Mines Company, Park County, was crushed and suffocated by falling rock—body was recovered about 4 hours later. Unavoidable accident.

July 2, George Zubernick, of Telluride, age 42, miner, unmarried, employed on the Laso Bisco lease operating on 5th level of the Veta Mines, Inc., San Miguel County, was killed instantly by falling from a ladderway in a raise from some unknown cause into the skipway and 350 feet down the skipway to the lower level. Unavoidable accident.

August 6, John Ruppel, of Cripple Creek, age 46, unmarried, leaser, in mine of Cresson Consolidated Gold Mining and Milling Company, Teller County, slipped and fell about 50 feet while sliding down rope from top of raise to level below, fracturing skull, etc. He died of these injuries August 13. (Ruppel had a heart attack about a year ago and was not allowed underground until given doctor's certificate. There was no evidence of rope burns on his hands—it appeared that he let go of rope and fell.)

August 30, Allen Talbott, of Nederland, age 21, unmarried, machineman, employed by The Wolf Tongue Mining Company, Boulder County, was fatally injured by flying rocks from one of seventeen drilled holes which exploded sooner than expected. Delay caused by using a carbide lamp for spitting the shots instead of spitter. He died 10 hours later from his injuries. Carelessness of injured, violation of safety rules and failure to use safety devices.

September 26, Earl William Copley, of Georgetown, age 31, married, mucker, and William Berns, of Georgetown, age 25, married, mucker, employed by Griffith Leasing Company, Clear Creek County, were supposedly killed from carbon monoxide gas according to verdict of coroner's jury. They were recent arrivals from Nebraska farms. Inexperience of employees.

October 17, Thomas Hull, of Ouray, age 28, married, miner;

Walter Freeman, of Ouray, age 45, unmarried, miner, and Arne Luhala, of Ouray, age 48, unmarried, timberman, employed by San Juan Metals Corporation, Ouray County, while timbering top of a raise from main level 70 feet high into an overhead stope were killed by sudden fall of rock. Classed by coroner's jury as an unavoidable accident.

October 29, Isaac Frear, of Ouray, age 24, married, trammer, employed by The King Lease, Inc., Ouray County, was killed by fall of rock. Decreed by coroner's jury as carelessness of injured.

November 6, Ed Kirby, of Silverton, age 43, unmarried, miner, employed by Sunnyside Mining and Milling Company, San Juan County, was killed by fall of rock. Declared unavoidable accident by coroner and mine inspector who held an inquest was unnecessary.

November 11, James Sams, of Telluride, age 40, married, machineman, employed by Butterfly Consolidated Mines, San Miguel County, was injured by fall of rock and died about three hours later. Wholly accidental.

December 4, John Marion Hickman, of Cripple Creek, age 58, married, timberman, employed by The United Gold Mines Company, of Teller County, in their Rose Nicol Mine, fell about 40 feet, fracturing his skull, etc., causing his death almost instantly. Hickman was blind in left eye. It was thought that possibly his limited vision had something to do with accident.

December 20, Chris H. Riebe, of Rico, age 35, unmarried, machineman helper, employed by Rico Argentine Mining Company, Dolores County, after spitting a round of eleven holes, was killed instantly by flying rock caused by a mysterious premature explosion. After a thorough investigation by the mine inspector and coroner the accident was classed as wholly unavoidable and an inquest unnecessary.

December 22, Ano E. Laine, of Leadville, age 24, married, loader, employed by Climax Molybdenum Company, Lake County, was trying to loosen jammed rocks in chute when suddenly "hang-up" started, he lost his balance and fell into chute and was hit by run of ore. He was removed within ten minutes but died about 2 hours later from injuries. Violation of safety rules. Hand hold might have prevented accident.

Shaft

February 11, Percy Abner Taylor, of Idaho Springs, age 48, unmarried, superintendent, employed by R. D. Marthens, (working Edgar Mine), Clear Creek County, was killed by falling with a skip 60 feet to bottom of shaft. Temporary platform on which skip was resting while Mr. Taylor was attaching cable gave way. Cause, faulty construction of platform; carelessness on part of employee.

March 1, Henry W. Blaser, of Alma, age 44, married, timberman, employed by Fairplay Gold Mines, Inc., Park County, was riding up in skip with 5 other men. For some unknown reason Blaser leaned over edge of skip and his head struck shaft timber injuring him severely. He died March 5 from injuries received. Safety rules complied with excepting public posting thereof by company. Carelessness of injured.

March 27, Lloyd H. Winters, of Cripple Creek, age 57, married, machineman, employed by United Gold Mines Company, Teller County, was riding up in skip and when engineer did not slow down as usual nearing the surface, Winters reached out after passing collar of shaft to pull bell cord and struck his head on cross timber of headframe. His skull was fractured and he died almost instantly. Carelessness of injured due to nervous fright and of engineer for overwind of cable after receiving repeated signals.

July 18, Glen Larson, of Leadville, age 19, unmarried, pipeman helper, employed by Climax Molybdenum Company, Lake County, was injured while riding in cage containing pipe. His left leg had to be amputated and he died 12 hours later. Inexperience of workman in this work.

November 16, Clyde Maynes, of Silverton, age 25, unmarried, motorman, employed by Sunnyside Mining and Milling Company, San Juan County, was coming off shift in cage and hoist clutch failed to function properly allowing cage to drop 45 feet, severely injuring employee. He died November 24 from effects of injuries.

Surface

October 21, Hugh Howell Leech, of Uravan, age 33, married, Diesel operator, employed by U. S. Vanadium Corporation, Montrose County, was hit by piece of broken machinery and died about 2 hours later. Caused by defect in machinery.

October 30, Daniel Kovith, of Silverton, age 42, married, miner, employed by Shenandoah-Dives Mining Company, San Juan County, fell approximately 40 feet from a tower on aerial tramway and was killed instantly. Coroner's jury found cause to be accidental derailment of a tram bucket.

Quarry

January 11, Inez Martinez, of Pueblo, age 64, widower, rock breaker, employed on W.P.A. Project building Rock Creek Dam, Pueblo County, was instantly killed while barring rock out of face of quarry. Evidently rock hit bar and threw him in front of rock which rolled over him as it descended the slope. There were no witnesses. Carelessness of employee—it was not his duty to bar down rock.

Smelter

December 13, John Trujillo, of Leadville, age 36, married, clean-up man on charge floor, employed by American Smelting and Refining Company, Lake County, was run over by a matte truck and died about 8 hours later. Carelessness of motorman and lack of safety rules.

TABLE II

DAYS OF EMPLOYMENT IN AND ABOUT MINES, MILLS AND SMELTERS AND NUMBER OF MEN KILLED AND INJURED PER 10,000 DAYS OF EMPLOYMENT DURING THE YEARS 1936 AND 1937

	Days of Employment		Killed				Serious Injury (Time Lost Over 14 Days)				Slight Injury (Time Lost Under 14 Days)			
			1936		1937		1936		1937		1936		1937	
	1936	1937	No of Acci-dents	Rate Per 10,000 Days	No. of Acci-dents	Rate Per 10,000 Days	No. of Acci-dents	Rate Per 10,000 Days	No. of Acci-dents	Rate Per 10,000 Days	No. of Acci-dents	Rate Per 10,000 Days	No. of Acci-dents	Rate Per 10,000 Days
Underground	1,412,375	1,612,933	23	.1628	31	.1922	388	2.747	337	2.089	761	5.388	706	4.377
Surface	501,461	485,983	2	.0398	2	.0411	119	2.373	111	2.284	148	2.951	186	3.827
Mills	389,109	461,688	2	.0513	..	....	42	1.079	28	0.606	57	1.464	48	1.039
Smelters	101,263	102,192	..	....	1	.0978	7	.691	3	0.293	7	.691	4	.391
Quarries	322,419	358,350	..	....	1	.0279	14	.434	12	0.335	28	.868	36	1.004
Placers	86,000	46,312	..	....	..	....	19	2.209	10	2.159	27	3.139	14	3.022
	2,812,627	3,067,458	27		35		589		501		1028		994	

During the year 1937, in addition to the foregoing, the following fatal accidents were reported to the Bureau of Mines: 5 on highway excavations and 4 of heart failure, two of which happened underground and two on surface. These should not be charged as mine accidents. There was also one accident in a Park County mine on August 12 which resulted in only minor injuries. The doctor stated that he could return to work in three or four days. Four months later Mr. Benton died of brain tumor, presumably the result of the accident but we have no confirmation of this.

TABLE III

CLASSIFICATION ACCORDING TO CAUSE OF ALL ACCIDENTS IN THE METAL MINING AND QUARRYING INDUSTRY IN THE STATE OF COLORADO DURING THE YEARS 1936 AND 1937

				Serious Injuries (Time lost over 14 days)						Slight Injuries (Time lost under 14 days)	
		Fatal		Permanent Total Disability		Permanent Partial Disability		Temporary Disability			
	UNDERGROUND	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937
1.	Fall of rock or ore from roof or wall	12	8	..	..	2	1	80	71	151	138
2.	Rock or ore while loading at working face	..	..	..	..	2	..	37	11	73	35
3.	Hand tools	..	..	..	..	..	..	18	19	52	45
4.	Explosives	2	5	..	..	1	1	17	12	12	16
5.	Haulage	..	2	..	..	2	2	53	54	86	130
6.	Falling down chute, winze, raise, or stope	2	4	..	..	1	..	31	25	24	45
7.	Run of ore from chute or pocket	..	3	..	..	..	..	7	14	12	21
8.	Drilling	..	..	..	..	2	3	43	35	104	96
9.	Electricity	..	..	..	..	..	..	3	..	5	2
10.	Machinery (other than locomotives or drills)	..	1	..	..	..	1	11	11	23	25
11.	Mine fires	..	..	..	..	..	..	..	..	1	1
12.	Suffocation from natural gases	..	2	..	..	..	..	2	..	6	3
13.	Inrush of water	..	..	..	..	..	..	..	..	..	2
14.	Stepping on nail	..	..	..	..	..	..	2	1	17	25
15.	Handling materials (other than rock or ore)	..	..	..	..	4	1	28	24	104	62
16.	Other causes	1	1	..	..	2	..	26	14	66	29
	Total	17	26	..	..	16	9	358	291	736	675
	SHAFT										
17.	Falling down shaft	1	1	..	..	..	..	2	2	1	7
18.	Objects falling down shaft	..	..	..	..	..	..	3	5	1	5
19.	Breaking of cables	..	..	..	..	..	..	2	1	..	1
20.	Overwinding	..	1	..	..	..	..	..	..	..	1
21.	Cage, skip, or bucket	4	2	..	..	..	1	5	23	17	12
22.	Other causes	1	1	..	..	..	..	2	5	6	5
	Total	6	5	..	..	..	1	14	36	25	31

SURFACE SHOPS AND PLANTS										
22. Mine cars, mine locomotives, or aerial trams	..	..	..	..	1	2	8	19	8	26
23. Railway cars and locomotives	..	..	..	..	..	..	..	4	3	1
24. Run or fall of ore in or from ore bins	..	..	..	..	..	..	4	2	6	4
25. Falls of persons	..	1	..	..	..	..	32	21	26	25
26. Stepping on nail	..	..	..	..	..	..	2	1	3	5
27. Hand tools	..	..	..	..	..	2	12	5	24	25
28. Electricity	..	..	..	..	..	..	5	4	2	4
29. Machinery	..	1	..	..	3	1	21	18	21	26
30a. Handling materials	..	..	..	..	3	..	22	31	43	59
30b. Other causes	2	..	..	..	1	..	5	1	12	11
Total	2	2	..	..	8	5	111	106	148	186
PLACER MINES—DREDGING										
1. Machinery	..	..	..	..	..	..	5	3	7	2
2. Electricity	..	..	..	..	..	..	1	..	1	..
3. Boiler explosions	..	..	..	..	..	..	..	..	..	..
4. Falls of persons	..	..	..	..	..	..	8	3	3	4
5. Hand tools	..	..	..	..	..	..	3	2	6	3
6. Other causes	..	..	..	..	1	1	1	1	10	5
Total	..	..	..	..	1	1	18	9	27	14
ORE-DRESSING AND MILLING										
1. Haulage (cars and motors)	..	..	..	..	..	..	2	..	2	..
2. Railway cars or locomotives	..	..	..	..	..	..	..	..	..	..
3. Crushers, rolls, or stamps	..	..	..	..	..	..	..	1	..	1
4. Tables, jigs, etc.	..	..	..	..	..	..	..	..	..	..
5. Other machinery	..	..	..	..	1	..	7	3	13	8
6. Falls of persons	..	..	..	..	..	..	12	10	10	10
7. Suffocation in ore bins	2	..	..	..	..	..	..	..	..	..
8. Falling objects (rocks, timbers, etc.)	..	..	..	..	..	..	3	5	1	5
9. Cyanide or other poisoning	..	..	..	..	..	..	..	..	..	1
10. Scalding (steam or water)	..	..	..	..	..	..	..	..	..	1
11. Electricity	..	..	..	..	..	..	..	1	4	2

CLASSIFICATION ACCORDING TO CAUSE OF ALL ACCIDENTS IN THE METAL MINING AND QUARRYING INDUSTRY IN THE STATE OF COLORADO DURING THE YEARS 1936 AND 1937—Continued

	Fatal		Serious Injuries (Time lost over 14 days)						Slight Injuries (Time lost under 14 days)	
			Permanent Total Disability		Permanent Partial Disability		Temporary Disability			
ORE-DRESSING AND MILLING—Continued	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937
12. Hand tools	..	..	..	..	1	..	4	2	3	3
13. Stepping on nail	..	..	..	..	..	..	..	..	3	2
14. Flying pieces of rock from sledging or crushing	..	..	..	..	..	..	1	1	2	2
15. Handling materials	..	..	..	..	..	..	2	1	7	8
15a. Other causes	..	..	..	..	..	..	4	1	1	..
Total	2	..	..	..	2	..	35	25	46	43
SMELTER										
16. Haulage (cars, motors, etc.)	..	1	..	..	..	..	..	..	1	..
17. Railway cars or locomotives	..	..	..	..	..	..	..	..	..	..
18. Cranes	..	..	..	..	..	..	..	..	..	1
19. Other machinery	..	..	..	..	..	..	3	2	..	1
20. Falls of persons	..	..	..	..	..	..	..	..	2	..
21. Suffocation in ore bins	..	..	..	..	..	..	..	..	..	..
22. Flying or falling objects (rocks, timbers, etc.)	..	..	..	..	..	..	2	..	1	..
23. Gas (burns or asphyxiation)	..	..	..	..	..	..	..	..	..	..
24. Scalding (steam or water)	..	..	..	..	..	..	..	..	..	..
25. Electricity	..	..	..	..	..	..	..	..	..	1
26. Hand tools	..	..	..	..	..	..	..	..	1	..
27. Stepping on nail	..	..	..	..	..	..	..	..	..	..
28. Burns from matte, slag, or molten metal (pouring or spilling)	..	..	..	..	..	..	1	1	2	..
29. Hot-metal explosion	..	..	..	..	..	..	..	..	..	..
30a. Handling materials	..	..	..	..	..	..	1	..	..	1
30b. Other causes	..	..	..	..	..	..	..	..	..	..
Total	..	1	..	..	..	..	7	3	7	4

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AUXILIARY WORKS

31. Haulage (cars and motors)	..	..	..	..	..	..	..	..	..	1
32. Railway cars or locomotives	..	..	..	..	..	..	..	..	..	..
33. Falls of persons	..	..	..	..	..	..	1	..	3	1
34. Falling objects (rocks, timbers, etc.)	..	..	..	..	..	..	1	1	1	1
35. Stepping on nail	..	..	..	..	..	..	..	..	..	..
36. Hand tools	..	..	..	..	..	..	2	1	1	..
37. Electricity	..	..	..	..	..	..	..	..	..	..
38. Machinery	..	..	..	..	..	..	..	..	1	..
39. Failure of ladder, scaffold, or other support	..	..	..	..	..	..	..	..	..	..
40. Handling hot materials	..	..	..	..	..	..	..	1	3	2
41a. Handling other materials	..	..	..	..	..	..	1	..	2	..
41b. Other causes	..	..	..	..	..	..	..	..	..	..
Total	..	..	..	..	..	..	5	3	11	5

IN AND ABOUT QUARRY

1. Falls or slides of rock or overburden	..	..	..	..	1	..	..	4	3	1
2. Handling rock at face	..	..	..	..	..	..	2	2	5	3
3. Timber or hand tools	..	..	..	..	..	..	1	..	3	1
4. Explosives—										
(a) Transportation	..	..	..	..	..	..	..	..	..	..
(b) Charging	..	..	..	..	..	..	..	..	..	..
(c) Drilling into old holes	..	..	..	..	..	..	..	..	..	..
(d) Striking in loose rock	..	..	..	..	..	..	..	..	..	..
(e) Thawing	..	..	..	..	..	..	..	..	..	..
(f) Caps, detonators, etc.	..	..	..	..	..	..	..	..	..	..
(g) Unguarded shots	..	..	..	..	..	..	..	..	..	..
(h) Returned too soon	..	..	..	..	..	..	..	..	..	..
(i) Premature shot	..	..	..	..	..	..	..	..	..	..
(j) Delayed blast	..	..	..	..	..	..	..	..	..	..
(k) Miscellaneous	..	..	..	..	..	..	..	..	..	..
5. Haulage—										
(a) Hand and animal	..	..	..	..	..	..	2	1	3	..
(b) Mechanical	..	..	..	..	..	..	..	..	..	..

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CLASSIFICATION ACCORDING TO CAUSE OF ALL ACCIDENTS IN THE METAL MINING AND QUARRYING INDUSTRY IN THE STATE OF COLORADO DURING THE YEARS 1936 AND 1937—Continued

	Fatal		Serious Injuries (Time lost over 14 days)						Slight Injuries (Time lost under 14 days)	
			Permanent Total Disability		Permanent Partial Disability		Temporary Disability			
IN AND ABOUT QUARRY—Continued	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937
6. Falling into quarry from surface, benches, or face	..	..	..	..	..	..	1	..	1	1
7. Falling from hoist, derricks, ladders, etc.	..	..	..	..	..	..	..	..	..	..
8. Drilling and channeling (by machinery or hand)	..	..	..	..	..	..	2	1	1	1
9. Electricity (shock or burns)	..	..	..	..	..	..	..	..	..	..
10. Machinery—										
(a) Cables and attachments	..	..	..	..	..	..	..	..	..	..
(b) Guys, masts, booms and attachments	..	..	..	..	..	..	..	..	..	..
(c) Pumps and hoisting engines	..	..	..	..	..	..	..	..	..	1
11. Flying objects	..	..	..	..	..	..	..	..	..	..
12. Nails, splinters, etc.	..	..	..	..	..	..	..	..	1	..
13. Boiler and air tank explosions	..	..	..	..	..	..	..	..	..	..
14. Falling objects	..	..	..	..	..	..	..	..	..	..
15. Burns	..	..	..	..	..	..	..	..	..	..
16. Other causes	..	..	..	..	..	..	..	..	..	..
Total	..	..	..	..	1	..	8	8	17	8
OUTSIDE WORKS										
17. Haulage—										
(a) Hand and animal	..	..	..	..	..	..	1	..	2	2
(b) Mechanical	..	..	..	..	..	..	..	..	..	1
18. Railway cars and locomotives	..	..	..	..	..	..	2	..	..	2
19. Crushers	..	..	..	..	..	..	..	..	1	..
20. Cranes, derricks, etc.	..	..	..	..	..	..	..	..	..	1
21. Other machinery	..	..	..	..	..	..	1	..	1	3
22. Falls of persons	..	1	..	..	..	..	1	..	3	3
23. Hand tools	..	..	..	..	..	..	..	1	..	2

24.	Electricity	..	..	..	..	..	..	..	..	..	..
25.	Nails, splinters, etc.	..	..	..	..	..	..	..	..	..	..
26.	Flying pieces of rock from sledging or crushing	..	..	..	..	..	..	..	1	1	5
27.	Flying or falling objects (rocks, timbers, etc.)	..	..	..	..	..	..	..	..	1	3
28.	Handling rock at face	..	..	..	..	..	..	..	2	..	6
29.	Burns	..	..	..	..	..	..	..	..	2	..
30.	Other causes	..	..	..	..	..	..	..	..	..	..
	Total	..	1	..	..	..	..	5	4	11	28

TABLE IV

CLASSIFICATION ACCORDING TO CAUSE AND OCCUPATION OF THE FATAL ACCIDENTS THAT OCCURRED IN THE METAL MINING AND QUARRYING INDUSTRY OF COLORADO IN THE YEARS 1936 AND 1937

MINES

	Superintendents, Foremen and Engineers		Machine Men and Helpers		Miners		Loaders, Shovelers, Muckers and Trammers		Trackmen, Pipemen, Pumpmen and Compressormen		Cage Tenders and Station Cagers		Carpenters Timbermen and Helpers		Electricians, Motormen and Helpers	
UNDERGROUND	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937
1. Falls of rock or ore from roof or wall	..	..	2	1	1	4	6	1	..	..	..	..	3	2	..	..
2. Handling rock or ore	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3. Timber or hand tools	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4. Explosives	..	..	1	3	..	1	1	1	..	..	..	..	..	..	..	..
5. Haulage	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
6. Persons falling down chute, winze, raise or stope	..	..	..	..	2	3	..	..	..	..	..	..	..	1	..	..
7. Run of ore from chute or pocket	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..
8. Drilling (by machine or hand drills)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
9. Electricity	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
10. Machinery other than 5 or 8	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
11. Mine fires	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
12. Suffocation from natural gases	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..
13. Inrush of water	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
14. Nails and splinters	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
15. Other causes	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..
Totals	..	1	4	4	3	9	7	7	..	..	..	..	3	3	..	2
SHAFTS																
16. Falling down shaft	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
17. Objects falling down shaft	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

18. Breaking of cables	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
19. Overwinding	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
20. Cage, skip or bucket	1	..	2	..	1	..	1	..	.	1	..	..	..	..	..	1
21. Other causes	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..
Totals	1	1	3	1	1	..	1	..	..	1	..	..	..	1	..	1

SURFACE ACCIDENTS

	Superintendents and Foremen		Engineers, Firemen and Hoistmen		Blacksmiths and Mechanics		Carpenters and Topmen		Electricians		Others	
	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937
22. Haulage	..	..	..	..	..	..	..	..	..	..	..	..
23. Railway cars and locomotives	..	..	..	..	..	..	..	..	..	..	..	..
24. Run or fall of ore in or from ore bins	..	..	..	..	..	..	..	..	..	..	..	..
25. Falls of persons	..	..	..	..	..	..	..	..	..	..	..	1
26. Nails and splinters	..	..	..	..	..	..	..	..	..	..	..	..
27. Hand tools, axes, bars, etc	..	..	..	..	..	..	..	..	..	..	..	..
28. Electricity	..	..	..	..	..	..	..	..	..	..	..	..
29. Machinery	..	..	..	1	..	..	..	..	..	..	..	..
30. Other causes	..	..	..	..	..	..	..	..	..	..	2	..
Totals	..	..	..	1	..	..	..	..	..	..	2	1

MILLS

	Superintendents and Foremen		Grinding Machinery Men and Millmen		Concentrator Men		Laborers		Carpenters Mechanics		Aerial Tram Men and Conveyor Men	
	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937
1. Haulage system	..	..	..	..	..	..	..	..	..	..	..	..
2. Railway cars and locomotives	..	..	..	..	..	..	..	..	..	..	..	..
3. Crushers, rolls or stamps	..	..	..	..	..	..	..	..	..	..	..	..
4. Tables, jigs, etc	..	..	..	..	..	..	..	..	..	..	..	..
5. Other machinery	..	..	..	..	..	..	..	..	..	..	..	..

STATE LIBRARY DENVER, COLO.

CLASSIFICATION ACCORDING TO CAUSE AND OCCUPATION OF THE FATAL ACCIDENTS THAT OCCURRED IN THE METAL MINING AND QUARRYING INDUSTRY OF COLORADO IN THE YEARS 1936 AND 1937—Continued

MILLS—Continued

	Superintendents and Foremen		Grinding Machinery Men and Millmen		Concentrator Men		Laborers		Carpenters Mechanics		Aerial Tram Men and Conveyor Men	
	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937	1936	1937
6. Falls of persons	..	..	..	..	..	..	..	..	..	..	..	..
7. Suffocation in ore bins	..	..	..	..	..	..	1	..	1	..	..	..
8. Falling objects (rocks, timbers, etc.)	..	..	..	..	..	..	..	..	..	..	..	..
9. Cyanide or other poisoning	..	..	..	..	..	..	..	..	..	..	..	..
10. Scalding (steam or water)	..	..	..	..	..	..	..	..	..	..	..	..
11. Electricity	..	..	..	..	..	..	..	..	..	..	..	..
12. Hand tools, axes, bars, etc.	..	..	..	..	..	..	..	..	..	..	..	..
13. Nails, splinters, etc.	..	..	..	..	..	..	..	..	..	..	..	..
14. Flying pieces of rock from sledging or crushing	..	..	..	..	..	..	..	..	..	..	..	..
15. Other causes	..	..	..	..	..	..	..	..	..	..	..	..
Totals	..	..	..	..	..	..	1	..	1	..	..	..

SMELTERS

	Superintendents and Foremen		Laborers		Motormen and Switchmen		Feeders and Furnace Men and Charge Wheelers	
	1936	1937	1936	1937	1936	1937	1936	1937
1. Haulage system	..	..	..	1	..	..	..	..
2. Railway cars and locomotives	..	..	..	..	..	..	..	..
3. Cranes	..	..	..	..	..	..	..	..
4. Other machinery	..	..	..	..	..	..	..	..
5. Falls of persons	..	..	..	..	..	..	..	..

6. Suffocation in ore bins	..	..	..	..	..	..	..	..
7. Flying or falling objects	..	..	..	..	..	..	..	..
8. Gas (burns or asphyxiation)	..	..	..	..	..	..	..	..
9. Scalding (steam or water)	..	..	..	..	..	..	..	..
10. Electricity	..	..	..	..	..	..	..	..
11. Hand tools, axes, bars, etc.	..	..	..	..	..	..	..	..
12. Nails, splinters, etc.	..	..	..	..	..	..	..	..
13. Burns, from matte, slag or molten metal (pouring or spilling)	..	..	..	..	..	..	..	..
14. Hot metal explosions	..	..	..	..	..	..	..	..
15. Other causes	..	..	..	..	..	..	..	..
Totals	..	..	..	1	..	..	..	..

QUARRIES, CLAY PITS AND OIL SHALE MINES

	Superintendents and Foremen		Teamsters		Drillmen		Laborers	
	1936	1937	1936	1937	1936	1937	1936	1937
1. Haulage	..	..	..	..	..	..	..	..
2. Machinery	..	..	..	..	..	..	..	..
3. Other causes	..	..	..	..	..	..	..	1
Totals	..	..	..	..	..	..	..	1

PLACERS AND DREDGES

	Miners		Laborers		Dredgemen	
	1936	1937	1936	1937	1936	1937
1. Machinery	..	..	..	..	..	..
2. Electricity	..	..	..	..	..	..
3. Other causes	..	..	..	..	..	..
Totals	..	..	..	..	..	..

LIST OF OPERATING MINES IN VARIOUS COUNTIES IN COLORADO

OPERATING MINES IN ARCHULETA COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Rio Grande and Treasure Comstock	Monte Vista	Lloyd Lawson	Box 56, Monte Vista	

OPERATING MINES IN BOULDER COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Acme	Boulder	St. Joe Mining and Milling Company	Boulder	Gold, Silver
Alamakee etc.	Gold Hill	W. D. Goudge	Gold Hill	Gold, Silver
Alaska Tunnel	Ward	R. L. Pancost and G. H. Simmons	Ward Star Route, Jamestown	Gold, Silver
Alice, Chancellor etc. (a) (m)	Jamestown	The Crystal Fluorspar Company	Boulder National Bank Building, Boulder	Gold, Silver, Lead, Fluorspar
Alpine Horn	Sugar Loaf	R. D. Ward	415 Marine Street, Boulder	Gold
American X	Magnolia	Renfro Brothers	Magnolia Star Route, Boulder	Gold
Amy Paul	Eldora	Elmer Metzer and Associates	736 Grant Street, Boulder	Gold
Argo (a) (m)	Jamestown	The Boulder Fluorspar and Radium Company	309 E. & C. Building, Denver	Gold, Silver, Lead, Copper, Zinc
Arrowhead	Gold Hill	Charles W. & John C. Linsey	Box 31, Alcott Station, Denver	Gold
B. & M.	Ward	P. A. Larson and Kent W. Johnson	Ward	Gold, Silver
Bailey Tunnel and Richmond Mine	Boulder	Richmond Mining Company	720 Mapleton, Boulder	Gold
Belle of Memphis	Gold Hill	Golderado Mining Company	2039 E. 13th Ave., Denver	Gold, Silver
Ben C. Lowell	Magnolia	Gene Schoy	Magnolia Star Route, Boulder	Gold, Silver
Big Five (m)	Ward	The North American Mining Company	405 Interstate Trust Building, Denver	Gold, Silver, Lead
Black Bird (a)	Boulder	Archer Mines and Development Company	2121 12th Street, Boulder	Gold
Blue Bird	Boulder	Fred White	2015 13th Street, Boulder	Silver
Blue Jay (a)	Jamestown	The Boulder Fluorspar and Radium Company	309 E. & C. Building, Denver	Fluorspar
Bonanza and Last Chance	Nederland	The Wolf Tongue Mining Company	310 First National Bank Building, Boulder	Tungsten
Boston (a)	Ward	Boston Mining Company, Charles Strong, Jr.	Ward Star Route, Jamestown	Gold, Silver
Brown Spar (a)	Jamestown	The Boulder Fluorspar and Radium Company	309 E. & C. Building, Denver	Fluorspar

Buckhorn and Vickery (a) (m)	Jamestown	The Boulder Fluorspar and Radium Company	309 E. & C. Building, Denver	Fluorspar
Cash etc.	Magnolia	H. S. Straughn	R. F. D. No. 2, Boulder	Gold, Silver
Chancellor	Jamestown	The Crystal Fluorspar Company	Boulder National Bank Building, Boulder	Fluorspar
Chingis Kahn	Boulder	J. G. Clark and E. F. Green	940 10th Street, Boulder	Gold, Silver
Colorado (a)	Ward	The Admiral Togo Mining Company, Dr. Homer Dielmier	Longmont	Gold
Concord etc.	Sugar Loaf	G. A. Sherman	1800 12th Street, Boulder	Gold, Silver
Conger (a)	Nederland	Vanadium Corporation of America, Robert Sterling	8 National State Bank Building, Boulder	Tungsten
Critic	Gold Hill	Miss Georgina Rowland	2235 12th Street, Boulder	Gold
Cross (a)	Nederland	The Cross Gold Mining Company, George H. Teal	Box 37, Boulder	Gold, Silver, Lead
Dime	Sugar Loaf	A. B. Weldon	Boulder	Gold, Silver
Emancipation (a)	Boulder	Emancipation and Consolidated Mines Incorporated	157 E. Erie Street, Chicago, Ill.	Gold, Silver
Empress (a)	Boulder	E. K. Henderson	1063 Mapleton Street, Boulder	Gold, Silver
Enterprise etc.	Boulder	Black Swan Mining and Milling Company	Boulder	Gold, Silver
Evening Star, St. John	Gold Hill	T. C. Boaten and Associates	Boulder	Gold, Silver
Eureka	Boulder	Carl Egle & R. E. Anderson	1039 Maxwell Street, Boulder	Tungsten
Fairfax	Boulder	Gold Hill Developments Limited	1400 E. 47th Ave., Denver	Gold, Silver
Fitzsimons No. 1 etc (a) (m)	Nederland	Fansteel Mining Corporation	North Chicago, Ill.	Tungsten
Fourth of July	Lyons	D. M. Spencer	Lyons	Gold, Silver
Gilard	Boulder	Joe Mazzini and Associates	Erie	Gold
Golden Age	Jamestown	Richmont Gold Mining Company	Boulder	Gold, Silver
Golden Harp (a) (m)	Boulder	Golden Harp Mining and Milling Syndicate	343 North Ashland Ave. La Grange, Ill.	Gold, Silver
Golden Queen	Ward	James and Joe Walters	Ward	Gold, Silver
Goldsmith Maid	Gold Hill	Paul Maurer and Associates	Salina Star Route, Boulder	Gold, Silver
Good Friday (m)	Sugar Loaf	George Jump and Associates	10th and Walnut Sts., Boulder	Tungsten
Grand Republic (a) (m)	Boulder	St. Joe Mining and Milling Company O. P. Pherson	Boulder 1743 Mapleton Ave., Boulder	Gold, Silver Gold
Grant (a)	Gold Hill	W. H. Cowdrey and K. P. Walsh	Gold Hill	Gold
Gray Eagle	Boulder	Harry A. Smith and Sparks Brothers	Kimball, Nebraska	Gold, Silver
Grouse	Boulder	J. A. Litsey	Boulder	Gold, Silver
Hereafter etc.	Magnolia	A. C. Wollenweber	Boulder	Gold
Ideal No. 2 (a)	Ward	W. C. Teegarden and Associates	Ward	Gold, Silver, Lead, Copper
Illinois (m)	Nederland	The Wolf Tongue Mining Company	310 First National Bank Building, Boulder	Tungsten
India	Magnolia	Edward F. Yates	1430 Arapahoe, Boulder	Gold, Silver

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(a) Operated for part of the year only. (c) No production reported in 1937. (m) Mill operated in connection with mine.

OPERATING MINES IN BOULDER COUNTY, 1937—Continued

Name of Mine	Location	Operator	P. O. Address	Character of Product
Ingram	Boulder	Mining Associates, Incorporated, T. K. Scott	First National Bank Building, Boulder	Gold, Silver
J. O. Lode	Jamestown	J. O. Davidson	Jamestown	Gold, Silver
John Jay (m)	Jamestown	Associated Metals Mines Incorporated, J. G. McKenzie	609-11 Cooper Building, Denver	Gold, Silver
KeKeOnga	Magnolia	Magnolia Consolidated Mines Company	424 Republic Building, Denver	Gold
Keystone	Magnolia	Clifford A. Staley	Magnolia Star Route, Boulder	Gold
King Wilhelm etc. (a)	Jamestown	Herman Erbert and Associates	Caribou	Gold
Little More	Jamestown	McCormick Brothers	Jamestown	Gold, Silver
Little Pittsburg	Magnolia	Renfro Brothers	Magnolia Star Route, Boulder	Gold
Livingston	Sugar Loaf	John R. Wolff	305 First National Bank Building, Boulder	Gold
Logan	Sugar Loaf	John R. Wolff	305 First National Bank Building, Boulder	Gold
Lucky Two (a)	Boulder	Gold, Silver and Tungsten, Incorporated	Box 296, Boulder	Tungsten
Mammoth (m)	Boulder	W. L. and S. H. Tanner	2144 17th Street, Boulder	Tungsten
Milwaukee	Ward	Milwaukee Mine Company	Route 4, Box 285, Longmont	Gold, Silver
Missing Link (a)	Boulder	H. W. Mack	2103 Pine Street, Boulder	Gold, Silver
Montezuma etc.	Sugar Loaf	James E. Cohig	1892 High Street, Denver	Gold
Morning Glory	Boulder	Otto Wiederhold	2528 12th Street, Boulder	Gold, Silver
Mountain Lion	Magnolia	R. R. Kermack	Route 6, Box 515, Denver	Gold
Nancy Group	Boulder	A. H. Scruggs and Associates	805 16th Street, Boulder	Gold, Silver
Nil Desperandum (a)	Boulder	S. M. Walker	240 West Belleview, Littleton	Gold
Norway	Eldora	Norway Syndicate	1014 9th Street, Greeley	Gold, Silver
Number Five	Ward	Ted Peart and W. H. Grant, Jr.	Ward	Gold, Silver
Ophir and Senator Hill	Magnolia	Renfro Brothers	Magnolia Star Route, Boulder	Gold
Oregon Dump (a) (m)	Sugar Loaf	H. M. Gregory	2440 8th Street, Boulder	Tungsten
Pandora	Nederland	Pandora Metals, Incorporated, A. E. Blakesley	220 E. & C. Building, Denver	Gold, Silver (c)
Peewink (a)	Sugar Loaf	Gold, Silver & Tungsten, Incorporated	940 10th Street, Boulder	Tungsten
Pennsylvania (a)	Sugar Loaf	McLellan & Peterson	930 14th Street, Boulder	Tungsten
Pilot (a)	Boulder	Gary Allen Gold Mining Company	1342 Glenarm Street, Denver	Gold, Silver
Pine Shade or Last Chance (a)	Jamestown	Golden Age Mining Company, J. H. Gates	510 Cooper Building, Denver	Gold, Silver (c)
Plow Boy	Gold Hill	John Ingram and Associates	Boulder	Gold, Silver
Poorman (a)	Boulder	Highlands Mining Company, George Jump	1015 Walnut Street, Boulder	Gold
Princess Ukulele (a)	Sugar Loaf	John Whitesides and Associates	827 Pearl Street, Boulder	Tungsten
Rambler (m)	Nederland	Thomas M. Walsh and Associates	Nederland	Tungsten

Recluse (a)	Sugar Loaf	McLellan & Peterson	930 14th Street, Boulder	Gold, Silver
Rocky Mountain and Mammoth Lode	Magnolia	L. C. Ruehle	56 Fox Street, Denver	Gold
Shirley etc.	Eldora	J. B. Rowley	Eldora	Gold, Silver, Lead, Copper, Zinc
Silver Dollar etc. (a)	Boulder	Golden Lace Mining Company	3047 W. 38th Ave., Denver	Gold, Silver
Slide (m)	Gold Hill	The Slide Mines Inc.	614 E. & C. Building, Denver	Gold, Silver
Smuggler	Lyons	The Smuggler Mining and Milling Company, Incorporated	111 Broadway, New York City	Gold, Silver
Sunshine, Black Swan	Gold Hill	E. H. Wilson and Associates	Boulder	Gold, Silver
United Mines (a) (m)	Boulder	United Empire Gold Mines Company	13 Citizens National Bank Building, Boulder	Gold, Silver (c)
Utica etc.	Ward	H. Guy Pyle	Ward	Gold, Silver
V. Nick	Ward	Herman Mandelko	617 Coffman Street, Longmont	Gold, Silver
Vasco (m)	Nederland	Gold, Silver and Tungsten, Incorporated	Box 296, Boulder	Tungsten
Victor	Nederland	Golden Dyke Mining Company Incorporated	228 Broadway, Denver	Tungsten
Wano (m)	Jamestown	H. M. Williamson	327 U. S. National Bank Building, Denver	Gold
Western Extension	Sugar Loaf	Lloyd Snively and Company	Boulder	Gold, Silver
Winona	Boulder	J. H. Harry	Boulder	Gold, Silver
Wisconsin	Sugar Loaf	United American Mining Corporation	Box 581, Boulder	Gold
Wood Mountain etc.	Sugar Loaf	Gold, Silver and Tungsten, Incorporated	Box 296, Boulder	Gold, Silver
Yellow Jacket	Sugar Loaf	C. H. Craig	1107 10th Street, Boulder	Gold, Silver
Yellow Pine	Boulder	Walter R. Coates	973 Lipan Street, Denver	Gold, Silver

OPERATING MINES IN CHAFFEE COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Alie Bell	Romley	Alie Bell Mining and Milling Company	824 Equitable Building, Denver	Gold, Silver, Lead
Colorado Fluorspar Tunnel	Salida	The Colorado Fluorspar Corporation, R. B. Spruill	Salida	Fluorspar
Doris Ruby (a) (m)	Buena Vista	Doris Ruby Mining Company, Henry Krueger	Buena Vista	Gold, Silver
Eleven O'Clock (a)	Granite	A. B. Calloway	3925 Wolff Street, Denver	Gold
Florence Extension (a) (m)	Granite	Granite Cooperative Mill, Leland A. Wilcox	Granite	Gold
Fluorspar Syndicate	Salida	Fluorspar Syndicate, Sumner M. Lloyd	314 E. Pikes Peak Ave., Colorado Springs	Fluorspar
Golden Cache	Granite	Leland A. Wilcox	Salida	Gold
Iron Duke	Monarch	C. B. Haley	Salida	Silver, Copper, Lead

(a) Operated for part of the year only. (c) No production reported in 1937. (m) Mill operated in connection with mine.

OPERATING MINES IN CHAFFEE COUNTY, 1937—Continued

Name of Mine	Location	Operator	P. O. Address	Character of Product
Leonhardy or Mt. Harvard (a)	Riverside	Doris Ruby Mining Company	Buena Vista	Silver, Lead, Copper Zinc
Lilly (a)	Garfield	Sturgill, Hudgens and Anson	Garfield	Silver, Lead
Mary Murphy	St. Elmo	Mary Murphy Gold Mining Co. Harry Payne Henry F. Carey	307 Boston Building, Denver Buena Vista St. Elmo	Gold, Silver, Lead, Copper, Zinc
Mayflower Incline	Granite	Mayflower Mining Company	622 So. 5th E., Salt Lake City, Utah	
Mizpah	Buena Vista	Mizpah Gold Mines, c/o T. W. Blake	Buena Vista	Gold
Snowflake Lode and Snowflake No. 2 (a)	Salida	J. H. Lionelle	1004 F Street, Salida	Fluorspar

OPERATING MINES IN CLEAR CREEK COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Alice (m)	Idaho Springs	American Smelting and Refining Company	120 Broadway, New York City	Gold, Silver, Copper
Bald Mountain	Idaho Springs	Bald Mountain Mines Incorporated, Paul T. Webb	Idaho Springs	Gold, Silver
Bard Creek (m)	Empire	A. F. Mayham	Idaho Springs	Gold, Silver, Lead, Copper, Zinc
Beaver	Idaho Springs	A. L. Wells and Associates	Idaho Springs	Gold, Silver
Black Bear etc.	Idaho Springs	W. A. Keys	Idaho Springs	Gold, Silver
Black Eagle (m)	Idaho Springs	Consolidated Smelting and Metals Corporation	3557 Wazee Street, Denver	Gold, Silver, Lead, Zinc
Bride	Idaho Springs	Richard Nankarvis and W. W. Murphy	Idaho Springs	Gold, Silver, Lead
Capital Prize (a)	Georgetown	Bellville Mines Company, W. E. Walters	Georgetown	Gold, Silver
Cardigan	Idaho Springs	Cardigan Mining Company, H. L. Nutting	DeSoto Hotel, Denver	Gold, Silver, Lead, Copper, Zinc
Cardwell	Idaho Springs	Charles Hull and Company	Idaho Springs	Gold, Silver
Central Tunnel and Edgar (a)	Idaho Springs	The North American Mining Company R. D. Marthens	405 Interstate Trust Building, Denver 1740 Grape Street, Denver	Gold, Silver, Lead, Copper
Clara B.	Georgetown	Eunice Leasing Company	4551 Federal Blvd., Denver	Gold, Silver
Clear Creek and Gilpin Tunnel	Dumont	Clear Creek Consolidated Mining Company, A. R. Specht	Dumont	Gold, Silver, Lead, Copper, Zinc

Clifford (a)	Idaho Springs	Clifford Mining Company, F. A. Gustafson	Idaho Springs	Gold, Silver
Columbia-Summit (m)	Idaho Springs	Columbia Summit Gold Mining Company	Box 522, Idaho Springs	Gold, Silver
Commonwealth Tunnel (a)	Georgetown	Eunice Mine, c/o Eunice F. Coulson	Georgetown	Gold, Silver, Lead
Conqueror	Empire	Viking Gold Mines Corporation	Empire	Gold, Silver
Crown Point	Idaho Springs	Crown Consolidated Mining Company	Idaho Springs	Gold, Silver
Dierks (a) (m)	Idaho Springs	Bruce Consolidated Mining Company	615 California Bldg., Denver	Gold, Silver
Dixie	Idaho Springs	LeRoy Giles & Company	Route 3, Box 194, Denver	Gold, Silver
Elliott and Barber (m)	Idaho Springs	Alma Lincoln Mining Company	Idaho Springs	Gold, Silver
Empress (a)	Idaho Springs	Charles A. Culter and Associates	Idaho Springs	Gold, Silver
Everett & Lebanon (a)	Silver Plume	Amanda Mining and Milling Company	317 C. A. Johnson Bldg., Denver	Gold, Silver
Freeland Extension	Idaho Springs	Freeland Extension Limited, J. C. Colesman	Idaho Springs	Gold, Silver
Freeland (m)	Idaho Springs	Mining Associates, Incorporated	Box 97, Idaho Springs	Gold, Silver
Gold Bug	Empire	The G.-B. Mine, Incorporated	825 First National Bank Building, Denver	Gold, Silver
Gold Dirt (a) (m)	Empire	James McNeely & Waldo Prout	Empire	Gold, Silver
Gold Fissure, Badger Tunnel	Empire	D. P. Bristol and E. E. Koch	Empire	Gold, Silver
Golden Calf (a)	Dumont	H. L. Nutting	Rawlins, Wyoming	Gold, Silver, Lead, Copper, Zinc
Griffith	Georgetown	Griffith Leasing Company, L. Connors	Georgetown	Gold, Silver
Hall Tunnel	Silver Plume	James Hamill	Silver Plume	Gold, Silver
Hamill Tunnel	Silver Plume	W. H. Stephens and F. L. Jones	Idaho Springs	Gold, Silver, Lead
Kangaroo (a)	Idaho Springs	David Larson and Bert Windser	Idaho Springs	Gold, Silver, Lead
Kavern	Dumont	Golden Rod Mines Incorporated, B. L. Grovth	Dumont	Gold, Silver
Kitty Clyde	Idaho Springs	Thomas B. Stearns	1718 California Street, Denver	Gold, Silver, Lead, Copper
Lady Bell	Dumont	S. V. Reedy	807 Marquette Ave., Minneapolis, Minnesota	Gold, Silver
Lamartine Tunnel	Idaho Springs	George F. Calloway and Associates Rudolph Brothers	Denver 2760 Downing Street, Denver	Gold, Silver, Lead
Lone Tree	Idaho Springs	Cress and McAuliffe	Idaho Springs	Gold, Silver
Lord Byron (m)	Idaho Springs	Humboldt Consolidated Mining Company	Idaho Springs	Gold, Silver, Lead, Copper, Zinc
Lucky Gold	Idaho Springs	Louis Burnett	Idaho Springs	Gold, Silver
Marry Tunnel	Idaho Springs	Hopkins Gold Development Company	Idaho Springs	Gold, Silver
Mattie (a) (m)	Idaho Springs	Mattie Consolidated Mining and Milling Company, R. R. Mitchell	Equitable Building, Denver	Gold, Silver
Maud Munroe	Idaho Springs	Cornelius Smith	Idaho Springs	Gold, Silver
McClelland Tunnel (m)	Idaho Springs	General Mining Corporation	Idaho Springs	Gold, Silver
Minnesota (m)	Empire	Minnesota Mines, Incorporated, D. A. Odell	Empire	Gold, Silver
Mint	Empire	C. E. Wallick	239 Lincoln Street, Denver	Gold, Silver

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(a) Operated for part of the year only. (c) No production reported in 1937. (m) Mill operated in connection with mine.

OPERATING MINES IN CLEAR CREEK COUNTY, 1937—Continued

Name of Mine	Location	Operator	P. O. Address	Character of Product
Old Settler	Idaho Springs	Walter V. Anderson	Box 695, Idaho Springs	Gold, Silver, Copper
Ottawa (a)	Idaho Springs	Gopher State Gold Limited	720 Majestic Building, Denver	Gold, Silver
Phoenix (m)	Idaho Springs	Phoenix Trail Mining Company	Idaho Springs	Gold, Silver
Red Jacket	Idaho Springs	Mack Moore	Idaho Springs	Gold, Silver
Santiago (a) (m)	Georgetown	Santiago Metals Corporation, J. R. Campbell	Georgetown	Gold, Silver, Lead
Silver Mountain etc.	Empire	Nelson Leasing and Development Company	Empire	Gold
Stanley etc.	Idaho Springs	Stanley Gold Mines Company, Limited	702 Colorado Building, Denver	Gold, Silver, Lead
Stephens Placer and Big Chief Tunnel	Idaho Springs	Freres Development Company	2301 15th Street, Denver	Gold, Silver, Lead, Copper
Tenth Legion	Empire	J. H. Girard	Empire	Gold
Torpedo (a)	Idaho Springs	United Miners	360 N. Michigan Ave., Chicago, Ill.	Gold, Silver, Lead, Zinc
Waldorf	Georgetown	Waldorf Gold, Incorporated	Georgetown	Gold, Silver
West Gold	Idaho Springs	West Gold Mining Company, Frank Jones	Idaho Springs	Gold, Silver

OPERATING MINES IN CONEJOS COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Eurydice (a)	Stunner	Wm. B. Avery	Monte Vista	Gold, Silver (c)
Valley Queen (a) (m)	Platoro	Platoro Gold Mines Incorporated, L. R. McCabe	418 W. 12th Street, Pueblo	Gold, Silver (c)

OPERATING MINES IN CUSTER COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Bassick (a)	Querida	Bassick Gold Mining Company	First National Bank Building, Bridgeport, Connecticut	Gold, Silver, Lead
Comstock Claim (a)	Querida	Comstock Mining Company	Silver Cliff	Gold
Defender Claim	Silver Cliff	J. T. Stroehlke and Associates	Silver Cliff	Gold, Silver, Lead, Zinc
New Hope	Silver Cliff	C. H. Conner	Silver Cliff	Silver, Lead, Zinc

OPERATING MINES IN DOLORES COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Emma (m)	Dunton	Modern Gold Mines Incorporated	303 Exchange National Bank Building, Colorado Springs	Gold, Silver
Expectation (a)	Rico	Rico Leasing Company	Rico	Gold, Silver, Lead, Zinc (c)
Forest (a)	Rico	Baer Brothers Lease	Rico	Gold, Silver, Lead, Zinc
Gold Anchor (a)	Rico	Day and Day Company	Rico	Gold, Silver, Copper Molybdenum (c)
Hicks	Rico	George S. Hicks	Rico	Gold, Silver, Lead, Copper, Zinc
Iron Springs	Rico	St. Louis Smelting and Refining Company	722 Chestnut Street, St. Louis, Missouri	Silver, Lead, Copper, Zinc (c)
Marko-Stanlin Lease (a)	Rico	Marko-Stanlin Lease	Rico	Gold, Silver, Lead, Zinc (c)
Rico Argentine (a)	Rico	Rico Argentine Mining Company	132 So. Main Street, Salt Lake City, Utah	Gold, Silver, Lead, Copper (c)
Rico Townsite and Newman Hill	Rico	Pelleyre Mining and Milling Company Rico Leasing Company Rico Enterprise Company	Rico Rico Rico	Gold, Silver, Copper, Lead, Zinc
St. Louis Tunnel etc.	Rico	St. Louis Smelting and Refining Company	722 Chestnut Street, St. Louis, Missouri	Silver, Lead, Copper, Zinc (c)
Union Carbonate (a)	Rico	Robert C. Baer	Rico	Gold, Silver, Lead, Zinc
Upper Swan	Rico	St. Louis Smelting and Refining Company	722 Chestnut Street, St. Louis, Missouri	Gold, Silver, Lead, Copper, Zinc (c)

OPERATING MINES IN EAGLE COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Alpine (a)	Belden Canyon	Mrs. O. W. Meyer	Redcliff	Gold, Silver, Copper, Zinc
Ben Butler (a)	Belden Canyon	Ben Butler Mining Corporation, E. A. Binton	Redcliff	Gold, Silver, Copper

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(a) Operated for part of the year only. (c) No production reported in 1937. (m) Mill operated in connection with mine.

OPERATING MINES IN EAGLE COUNTY, 1937—Continued

Name of Mine	Location	Operator	P. O. Address	Character of Product
Champion	Redcliff	Ground Hog Tunnel and Mining Company, c/o C. E. Renstrom	First National Bank, Denver	Gold, Silver, Copper
Eagle Mines (m)	Gilman	The Empire Zinc Company W. M. Wildey and A. L. Moore, lessees	Gilman Redcliff	Gold, Silver, Copper, Zinc
Star of the West	Belden Canyon	C. A. DeWitt	Redcliff	Gold
Tip Top and Cora	Belden Canyon	A. J. Clooney	Redcliff	Gold (c)
	Redcliff	Charles M. Bowen	Leadville	Gold, Silver

OPERATING MINES IN GILPIN COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Adeline-Corydon	Central City	Mabee-Williams Development Company	816 Continental Bldg., Denver	Gold
Atlantic (a)	Blackhawk	Atlantic Mines, Incorporated, E. C. Porter	230 Wilda Building, Denver	Gold, Silver, Lead
Barnes (a)	Central City	The Barnes Gold Mining Company, Lawrence Seaton	424 Republic Building, Denver	Gold, Silver
Bates Hunter and Becker Bates (m)	Central City	Gregory-Bates Mining Company, Justin Haynes	Blackhawk	Gold, Silver
Bobtail Tunnel (m)	Blackhawk	Gregory-Bates Mining Company	Blackhawk	Gold, Silver
Bullion No. 7 (a)	Central City	Gass Brothers	Belleville Hotel, Belleville, Ill.	Gold, Silver, Lead, Zinc
Champion	Blackhawk	C. E. Balback	1012 N. 39th Street, Omaha, Nebraska	Gold, Silver, Lead
Chase	Central City	Brock and Stauffer	3112 Elizabeth Street, Denver	Gold, Silver
Clay County	Central City	Harry Homburg and Gold Ridge Mining Company	Central City	Gold, Silver
Colorado Tunnel (a)	Rollinsville	Tip-Top Gold Mines, Incorporated	522 Denham Building, Denver	Gold, Silver
Coeur d'Alene	Central City	Coeur d'Alene Mining Company, T. H. Jenks	Central City	Gold, Silver
Dew Drop (a)	Rollinsville	Tip-Top Gold Mines, Incorporated	522 Denham Building, Denver	Gold, Silver
Dirigo (m)	Blackhawk	Dirigo Mining Company	2379 Dexter Street, Denver	Gold, Silver
Druid	Russell Gulch	Oberasler and Company	Russell Gulch	Gold, Silver
Durango	Blackhawk	Snyder and Webber	Central City	Gold
Eureka etc.	Blackhawk	Gilpin Eureka Consolidated Mines, Incorporated	300 Dwight Building, Kansas City, Missouri	Gold, Silver
Fairfield etc.	Russell Gulch	Ben T. Owen and Associates	Russell Gulch	Gold, Silver, Copper, Lead

Federal etc.	Russell Gulch	R. I. Hughes	Russell Gulch	Gold, Silver
Frontenac (a)	Russell Gulch	Frontenac Incorporated, Thomas Redington	564 So. Ogden Street, Denver	Gold, Silver
Fulton	Russell Gulch	Routt A. Bryant	Russell Gulch	Gold, Silver
Gold Cloud	Russell Gulch	A. C. Thomas	Central City	Gold, Silver
Gold Dirt (a)	Rollinsville	Tip-Top Gold Mines, Incorporated	522 Denham Building, Denver	Gold, Silver
Golden Dollar	Russell Gulch	The Cornichyr Mining Company, P. L. Corbin	2527 Albion Street, Denver	Gold, Silver
Hayseed	Central City	Mancos Gold Mining Company	506 U. S. National Bank Building, Denver	Gold, Silver, Copper
Iowa (a) (m)	Central City	Iowa Mining and Milling Company	Box 644, Central City	Gold
Justice (a)	Central City	Justice Mines, Incorporated, Floyd F. Miles	719 Majestic Building, Denver	Gold, Silver
Kirk	Central City	The Raoul Mines, Incorporated	532 Main Street, Blackhawk	Gold, Silver, Copper, Uranium
Link Lode (a)	Gamble Gulch	Golden Bucket Mining Company	3218 W. 16th, Denver	Gold
Monmouth Kansas, Part of (a)	Russell Gulch	Union Carbonate Mines, Incorporated	307 Boston Building, Denver	Gold, Silver
Montana (a) (m)	Central City	Montana Mines, Incorporated, H. A. Walstrum	Central City	Gold, Silver
Mountain Chief (a)	Rollinsville	Tip-Top Gold Mines, Incorporated	522 Denham Building, Denver	Gold, Silver
National (a)	Central City	Lucky Discovery Gold, Incorporated	931 U. S. National Bank Building, Denver	Gold, Silver
Old Town etc.	Russell Gulch	Himrod-Kimball Mines Company	Russell Gulch	Gold, Silver
Pay Off	Central City	Gold Ridge Mining Company, F. W. Howbert	1163 Washington, Denver	Gold, Silver
Penobscot	Rollinsville	Tip-Top Gold Mines, Incorporated	522 Denham Building, Denver	Gold, Silver
Perigo (m)	Rollinsville	Tip-Top Gold Mines, Incorporated	522 Denham Building, Denver	Gold
Perrin	Blackhawk	R. S. Hughes	Russell Gulch	Gold, Silver, Copper
Pewabic	Russell Gulch	Pewabic Mining and Milling Company	3254 Walnut Street, Denver	Gold, Silver
Phillips	Russell Gulch	Mrs. Lucy I. Harrington	707 So. Downing, Denver	Gold, Silver
Pittsburgh and Notaway	Russell Gulch	Russell Gulch Mining Company	Russell Gulch	Gold, Silver, Copper
Powers (m)	Central City	War Dance Mines, Incorporated	Idaho Springs	Gold, Silver
Pyrenes	Russell Gulch	T. H. Pederson	Russell Gulch	Gold, Silver, Lead
Rochester (a) (m)	Blackhawk	The Saco DeOro Mining and Milling Company	Box 214, Central City	Gold, Silver
Robert Emmett (a) (m)	Rollinsville	Harry Roe	Rollinsville	Gold, Silver, Copper, Zinc
Robert Fulton	Russell Gulch	R. A. Bryant	Russell Gulch	Gold, Silver
Saratoga	Central City	Saratoga Mining Company	Central City	Gold, Silver
Semiprone (m)	Blackhawk	Gold Dipper Mines Incorporated, C. R. McKay	Central City	Gold, Silver
Troublesome	Central City	New Moon Mining Company, W. I. Dukes	925 Grant, Boulder	Gold, Silver
United Gilpin (m)	Central City	United Gilpin Corporation M. L. Seeley	Central City	Gold, Silver, Copper, Zinc

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(a) Operated for part of the year only. (c) No production reported in 1937. (m) Mill operated in connection with mine.

OPERATING MINES IN GILPIN COUNTY, 1937—Continued

Name of Mine	Location	Operator	P. O. Address	Character of Product
Unity	Blackhawk	D. F. Wilson	Central City	Gold, Silver, Copper
We Got Em (m)	Blackhawk	Gilpin County Gold Mining Corporation, C. B. Garnett	415 Chamber of Commerce Building, Denver	Gold, Silver
West Notaway (a)	Central City	B. E. Neeper	Idaho Springs	Gold, Silver
Wheeler (m)	Blackhawk	Colorado Silver Mines, Incorporated	303 Midland Savings Bank Building, Denver	Gold, Silver, Lead. Copper, Zinc

OPERATING MINES IN GUNNISON COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Akron (a)	Sargent	Akron Mines, Julius H. Warner	1441 Welton Street, Denver	Gold, Silver, Lead. Zinc (c)
Augusta etc.	Crested Butte	R. E. Simpson	Crested Butte	Gold, Silver, Lead. Copper
Bassick	Ohio	Philip Gardner and Associates	Ohio. Colorado	Gold, Silver, Lead
Baxter (a)	Crested Butte	Golden Comet Mines, C. D. McHenry	Gunnison	Gold, Silver, Lead
Camp Bird (a) (m)	Pitkin	The Roosevelt Gold Mines Company	Pitkin	Gold, Silver
Carter (m)	Ohio	The Carter Mines Company	Ohio, Colorado	Gold, Silver
Chicago	Pitkin	Manhattan Mining Company	Pitkin	Gold, Silver, Lead
Cortland (a)	Ohio	Old Tom Mining Company	1 Exchange Place, Jersey City, N. J.	Gold, Silver, Lead. Zinc
Doctor (a)	Gunnison	J. D. Parsons	Gunnison	Gold, Silver, Lead, Zinc
Gold Cup Group	Gunnison	J. W. Belcoe	Almont	Gold, Lead, Copper (c)
Golden Comet (a)	Gunnison	C. D. McHenry	Gunnison	
Golden Wedge etc.	Ohio	Edward Desborough and M. O. Akins	Ohio, Colorado	Gold, Silver
Inez	Marble	George Harris and Sons	Marble	Gold, Silver
Roosevelt (a) (m)	Pitkin	The Roosevelt Gold Mines Company	Pitkin	Gold
Vulcan-Good Hope (a)	Gunnison	Diamond "C" Mining and Milling Company, S. V. Clevenger	Gunnison	Gold, Silver, Lead (c)
Wayne	Gunnison	J. W. Stone	Ohio, Colorado	Gold, Silver, Lead

OPERATING MINES IN HINSDALE COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Armitage	Lake City	Wilson and Hunt	Lake City	Silver, Lead
Gallic-Vulcan (m)	Capital City	C. H. Blakeslee	Lake City	Gold, Silver, Copper, Lead, Zinc
Golden Wonder	Lake City	J. W. Vickers	Lake City	Gold, Silver, Lead
Ute, Ulay	Lake City	M. B. Burke Mining and Investment Company	301 Humboldt Street, Denver	Gold, Silver, Copper, Lead, Zinc

OPERATING MINES IN LAKE COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
A. Y. and Minnie	Leadville	Paul W. Crawford	Leadville	Silver, Lead
Adelaide	Leadville	Adelaide Leasing Company Oscar Karppinen	516 E. 6th Street, Leadville Leadville	Lead, Zinc
Amity	Leadville	Edward P. Chapman	Leadville	Gold, Silver
Belle of Granite	Granite	Del Oro Mines	Salida	Gold, Silver
Ben Franklin etc.	Leadville	John Harvey	Leadville	Gold, Silver
Bengal Tiger	Twin Lakes	Charles Brown	Kremmling	Gold, Silver, Lead
Big Four Tunnel (a)	Evans Gulch	Big Four Gold Group Incorporated, J. H. Connell	Leadville	Gold, Silver, Lead
Blanche Lease	Leadville	Blanche Lease	Leadville	Gold, Silver, Lead
Breece Shaft No. 1 (a)	Breece Hill	Breece Lease, E. T. Chapman	Leadville	Gold, Silver
Chippewa	Breece Hill	Chippewa Lease	707 E. 5th Street, Leadville	Gold, Silver, Lead
Chrysolite	Leadville	Chrysolite Company	Leadville	Silver, Lead
Clear Grit (a)	Iowa Gulch	E. C. Congdon	Duluth, Minnesota	(c)
Cleveland Dump	Evans Gulch	Leadville Metals Milling Company	Bank Annex, Leadville	Gold, Silver, Copper, Lead, Zinc
Climax (m)	Climax	Climax Molybdenum Company	Climax	Molybdenum
Dolly B.	Big Evans Gulch	Jack McCaughan & Company	200 W. 7th Street, Leadville	Gold, Silver, Lead
Eureka	Independence Pass	Eureka Saturday Night Mining Company	1015 Transportation Building, Detroit, Michigan	Gold, Silver
Famous Shaft	Evans Gulch	Carl Youngstrom and Associates	100 E. 11th Street, Leadville	Gold, Silver, Lead
Fanny Rawlins	Leadville	John Cortellini	Leadville	Gold, Silver, Lead, Copper
First National (a) (m)	Iowa Gulch	London Deep Mines Company	310 W. 8th Street, Leadville	Gold, Silver, Lead
Forbes Tunnel	Evans Gulch	New Monarch Lease	215 W. 6th Street, Leadville	Gold, Silver, Lead, Zinc

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OPERATING MINES IN LAKE COUNTY, 1937—Continued

Name of Mine	Location	Operator	P. O. Address	Character of Product
Fortune	Evans Gulch	James R. McNeece J. W. Brennan and Associates	Leadville 205 E. 10th Street, Leadville	Gold, Silver, Lead, Zinc
Gallagher Dump	Leadville	Webster Brothers	400 E. 4th Street Leadville	Gold, Silver, Copper, Lead
Gallagher Tunnel	Leadville	Commerce Lease, c/o Ellis B. Webster	400 E. 4th Street Leadville	Gold, Silver, Copper, Lead
Highland Mary Tunnel	Leadville	Highland Mary Lease, James Boland	620 E. 5th Street, Leadville	Gold, Silver, Lead, Bismuth
Hume Shaft	Poverty Flats	Chrysolite Company	205 W. 9th Street, Leadville	Manganese
Ibex	Leadville	Ibex Mining Company	Leadville	Gold, Silver, Copper, Lead, Zinc
Iron Hat	Leadville	Alice B. Webster	Leadville	Gold, Silver, Lead
John Reed	Leadville	John Reed Mines	Leadville	Gold, Silver, Lead
Killarney (a)	Leadville	The Killarney Properties	182 Mar Vista Ave., Pasadena, Calif.	Gold (c)
Lackawanna Belle	Twin Lakes	Saturday Night Mining Company	Twin Lakes	Gold, Silver
Last Chance (a)	Twin Lakes	Harold Bullard	32 Battery Block, Independence, Missouri	Gold, Silver (c)
Liddia	Iowa Gulch	Togo Mining Company	220 E. 9th Street, Leadville	Gold, Silver, Lead, Zinc
Lilian	Iowa Gulch	Murcray Brothers	415 E. 8th Street, Leadville	Gold, Silver, Lead
Little Ellen Dump	Evans Gulch	John M. Murray	801 E. 6th Street, Leadville	Gold, Silver, Lead
Matchless (a)	Leadville	Matchless Mining Company	238 White Ave., Grand Junction	Iron (c)
Mayflower Tunnel	Mosquito Range	Belle Placer Mining Company	Leadville	....
Monarch	Leadville	New Monarch Lease	Leadville	Gold, Silver, Lead
Morning Star etc.	Leadville	Ezra D. Dickerman	Box 971, Leadville	Gold, Silver, Lead, Copper, Zinc
Ollie Reed No. 2 Shaft	South Evans Gulch	The Ollie Reed Lease	229 E. 11th Street, Leadville	Gold, Silver, Lead
Printer Boy	Leadville	W. J. Caulfield	Tennessee Pass	Gold, Silver
Resurrection	Leadville	Zenda Leadville Mining Company	Leadville	Gold, Silver, Lead, Zinc
St. Louis Tunnel Dump	Leadville	Riley & Company	500 W. 8th Street, Leadville	Gold, Silver, Lead
Seventy Six Shaft (a)	California Gulch	Lindbloom Lease	Box 604, Leadville	Silver, Lead
South Winnie	Breece Hill	E. L. Brown & Company	700 Harrison, Leadville	Gold, Silver, Lead
Stone Dump	California Gulch	Fred A. Joyce & Company	301 E. 5th Street, Leadville	Gold, Silver, Lead, Zinc
Tenderfoot	Leadville	The Ollie Reed Lease	229 E. 11th Street, Leadville	Gold, Silver, Lead
Triumph	Leadville	Triumph Gold Incorporated, Frank Kendrick, Jr.	Leadville	Gold, Silver
Tucson Dump	Iron Hill	Crawford Lease	Box 604, Leadville	Lead, Zinc
Valley	Evans Gulch	The Brattleboro Mining Company	1343 High Street, Denver	Gold, Silver, Lead

Venir Shaft	Upper Breece Hill	Venir Lease, John Cortellini	Leadville	Gold
Winnie Dump	Evans Gulch	Leadville Metals Company	Bank Annex, Leadville	Gold, Silver, Lead, Copper, Zinc
Youngstrom Lease	Leadville	Youngstrom Lease	Box 604, Leadville	Gold, Silver, Lead

OPERATING MINES IN LA PLATA COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Buffalo and Bristol (a)	Durango	F. P. Bicknell	1218 Logan Street, Denver	Gold, Silver (c)
Gold Coin etc.	Durango	Elmer M. Mason	Durango	Gold
Gold King	Hesperus	Gold King Mines	Durango	Gold, Silver
Idaho (a) (m)	Hesperus	LaPlata Mountains Gold Mines, Incorporated	403 Cooper Building, Denver	Gold, Silver
LaPlata (m)	Hesperus	Fawn Mining Company	Hesperus	Gold, Silver
Lady Eleanora (a) (m)	Hesperus	The Lady Eleanora Consolidated Gold Mines Company	Hesperus	Gold, Silver (c)
May Day (a)	Hesperus	Amparo Mining Company	502 Drexel Building, Philadelphia, Pa.	Gold, Silver (c)
May Rose Group	Hesperus	Amparo Mining Company	502 Drexel Building, Philadelphia, Pa.	Gold, Silver, Copper (c)

OPERATING MINES IN LARIMER COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Mason (a) (m)	Masonville	Masonville Mines Incorporated	1014 9th Street, Greeley	Gold, Silver
Rockfield (a) (m)	Logcabin	S. A. Pendergast	Eggers	Gold, Silver, Copper

OPERATING MINES IN MESA COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Copper Rivet (a)	Gateway	James P. Galloway and Associates	Norwood	Gold, Silver, Copper

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OPERATING MINES IN MINERAL COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Commodore No. 3	Creede	Commodore-Bachelor Mines Incorporated, Ed Thornton	Monte Vista	Silver
Corsair	Creede	B. F. Palfreyman	Provo, Utah	Silver
Last Chance	Creede	Morgan and Sloan	Creede	Silver, Lead
Manitoba	Creede	A. L. Moses and Associates	Creede	Silver, Lead
Monon etc.	Creede	Weaver, Oates and Company	Creede	Silver
Ocher	Creede	Dwyer Leasing Company, c/o E. V. Dwyer	126 Logan Street, Denver	Silver, Lead
Sloan Tunnel	Creede	The Amethyst Lease, c/o W. C. Sloan	Creede	Silver, Lead
Wagon Wheel Gap (m)	Wagon Wheel Gap	Colorado Fuel & Iron Corporation	Continental Oil Bldg., Denver	Fluorspar
Wedge Lease	Creede	Wedge Leasing Company, John Weaver	Creede	Silver, Lead

OPERATING MINES IN MONTEZUMA COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Barr-Menefee	Mancos	Barr-Menefee Mining Company	Mancos	Gold, Silver (c)
Red Arrow	Mancos	The Red Arrow Gold Corporation	Mancos	Gold, Silver
Thunder (a)	Mancos	Charles H. Starr	Mancos	Gold, Silver

OPERATING MINES IN MONTROSE COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Cashin	Paradox	Leo Johnson and Associate Cashin Montrose Mining Company, E. P. Simmons	Paradox Paradox	Gold, Silver, Lead, Copper, Zinc
Cliffdweller (a)	Paradox	LaSal Mines Incorporated, J. W. Farley	Paradox	Gold, Silver, Lead, Copper, Zinc
Denver (a)	Paradox	O. H. Barney and George W. Bell	Naturita	Gold, Silver, Copper (c)
Florence Group	Uravan	U. S. Vanadium Corporation	30 E. 42nd St., New York City	Vanadium
Great Western Group	Uravan	U. S. Vanadium Corporation	30 E. 42nd St., New York City	Vanadium
Honeymoon Group	Uravan	U. S. Vanadium Corporation	30 E. 42nd St., New York City	Vanadium
Tripod Group	Uravan	U. S. Vanadium Corporation	30 E. 42nd St., New York City	Vanadium
Uravan Plant and Mines (m)	Uravan	U. S. Vanadium Corporation	30 E. 42nd St., New York City	Vanadium
U. S. Vanadium Salt	Bedrock	U. S. Vanadium Corporation	30 E. 42nd St., New York City	Salt

OPERATING MINES IN OURAY COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Albers (a) (m)	Ouray	G. A. Franz	Ouray	Gold, Silver, Lead, Copper, Zinc (c)
Alma	Ouray	Earl A. Alexander	Ouray	Gold, Silver
American Nettle	Ouray	W. A. McCullough	Ouray	Gold, Silver, Copper, Lead
Calliope	Ouray	B. P. Bailey and Associates	Acme Life, Inc., Austin, Texas	Gold, Silver, Lead, Copper, Zinc
Camp Bird (m)	Ouray	Camp Bird Limited	Colorado National Bank Building, Denver	Gold, Silver, Lead, Copper, Zinc
		The King Lease, Incorporated	Ouray	
Cumberland Dump (a) (m)	Ouray	G. A. Franz	Ouray	Gold, Silver, Lead, Zinc
Franz Dunmore (m)	Ouray	G. A. Franz	Ouray	Gold, Silver, Lead, Copper, Tungsten
Governor etc.	Ouray	Earl A. Alexander	Ouray	Gold, Silver
Hero	Ouray	Leo Vedder	Ouray	Gold, Silver, Copper
Ida L. (a)	Ouray	J. C. Ryan and Associates	Ouray	Gold, Copper, Lead, Zinc (c)
Mineral Farm (a)	Ouray	Mineral Farm Mines, Incorporated, W. M. Cuttler	Ouray	Gold, Silver, Lead, Zinc (c)
Old Maid Group (a) (m)	Ouray	G. A. Franz	Ouray	Gold, Silver, Lead (c)
Pony Express (a) (m)	Ouray	G. A. Franz	Ouray	Gold, Silver, Lead, Zinc
Revenue Group	Ouray	Revenue Development Corporation, J. W. Belcoe	Ouray	Gold, Silver, Lead, Copper
Saratoga (a)	Ouray	Joe Condotti	Ouray	Gold, Silver, Lead, Copper, Zinc
Silver Tip-Gold Crown (a)	Ouray	Silver Tip-Gold Crown Mining and Milling Company	906-8 Union Trust Building, Washington, D. C.	Gold, Silver, Copper, Zinc
Syracuse Tunnel (a) (m)	Ouray	G. A. Franz	Ouray	Gold, Silver, Lead, Copper, Zinc
Treasury Tunnel (m)	Ouray	San Juan Metals Corporation	9 Rockefeller Plaza, New York City	Gold, Silver, Lead, Copper, Zinc
Wanakah (a) (m)	Ouray	Roy and Franklin Roy Shafer	Ouray	Gold, Silver, Copper

(a) Operated for part of the year only. (c) No production reported in 1937. (m) Mill operated in connection with mine.

OPERATING MINES IN PARK COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
American	Alma	W. A. Ellis, Incorporated	327 Majestic Building, Denver	Gold, Silver, Lead, Zinc
Barcoe Tunnel	Fairplay	Barcoe Mining Company	1002 Patterson Bldg., Denver	Gold, Silver
Bridal Chamber or West London	Alma	West London Mines Company J. N. Redman	609 California Bldg., Denver	Gold, Silver, Lead, Zinc
Butte (m)	Alma	London-Butte Gold Mines Company	529 Equitable Bldg., Denver	Gold, Silver, Lead, Zinc
Golden Era (a)	Alma	Golden Era Mining Company	2803 Gaylord Street, Denver	Gold, Silver
Hock Hocking (a) (m)	Alma	Argentine Gold Mining Company	601 U. S. National Bank Building, Denver	Gold, Silver, Lead, Zinc
London (m)	Alma	The London Mines and Milling Company	Mining Exchange Building, Colorado Springs	Gold, Silver, Lead, Zinc
Lone Jack and White Swan (a)	Alma	The Lone Jack Molybdenum Company, J. N. Redman	609 California Bldg., Denver	Molybdenum
Loveland	Alma	Loveland Mountain Leasing Company and Loveland Mining Company	Alma	Gold, Silver, Lead
Magnolia	Alma	W. H. Powless	2137 4th Street, Boulder	Gold, Silver, Lead
Morning Star (m)	Alma	Alma Syndicate Incorporated	707 1st Nat. Bk. Bldg., Denver	Gold, Silver
North London (m)	Alma	Fairplay Gold Mines, Incorporated, J. P. Briscoe	Fairplay	Gold, Silver, Lead, Zinc
Novasembla (a)	Alma	S. R. Phillips	Alma	Gold, Silver
Old South London Mine Dump (a) (m)	Alma	London Extension Mining Company, Frank Bishop	Fairplay	Gold, Silver
Orphan Boy etc.	Alma	Kennebec Mining Company	201 Wilda Building, Denver	Gold, Silver, Lead
Paris (a) (m)	Alma	Alma Gold Corporation	706 1st Nat. Bk. Bldg., Denver	Gold, Silver
Phillips	Alma	Phillips Gold Mines	Alma	Gold, Silver, Lead, Copper
Susquehanna (a)	Alma	A. Cooper and Associate	Box 791, Denver	Gold, Silver, Lead, Zinc
Union Number Five	Alma	Pierce and Siemon	Alma	Gold, Silver, Lead, Zinc

OPERATING MINES IN PITKIN COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Highland Tunnel (a)	Aspen	Highland Mines Incorporated, E. D. Gould	Aspen	Silver
Midnight (m)	Aspen	The Midnight Mining Company, F. D. Willoughby	Aspen	Silver, Lead, Zinc
Spar etc.	Aspen	D. P. Rohlfing	Aspen	Silver

OPERATING MINES IN RIO GRANDE COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Summitville (m)	Summitville	Summitville Consolidated Mines, Incorporated	Monte Vista	Gold, Silver

OPERATING MINES IN ROUTT COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Elkhorn (a)	Columbine	Elkhorn Gold and Silver Mining Corporation	Columbine	Gold, Silver, Lead, Copper, Zinc

OPERATING MINES IN SAGUACHE COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Alpine (m)	Crestone	The Alpine Mining and Milling Company	Crestone	Gold
Baltimore	Bonanza	Eastman and Keserich	Bonanza	Gold, Silver, Lead
Columbia (a)	Villa Grove	Colorado Bonanza Gold Mines Company, James E. Cole	Villa Grove	Gold, Silver
Grover Cleveland (a)	Bonanza	Richard Smith	515 North Champa Street, Pratt, Kansas	Silver, Lead, Zinc
Jupiter (a)	Bonanza	Charles Bowers and Associates	Bonanza	Silver, Lead, Copper, Zinc
Luis Maria Baca (a) (m)	Crestone	Luis Maria Baca Mining and Development Company	404 Equitable Building, Denver	Gold, Silver

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(a) Operated for part of the year only. (c) No production reported in 1937. (m) Mill operated in connection with mine.

OPERATING MINES IN SAGUACHE COUNTY, 1937—Continued

Name of Mine	Location	Operator	P. O. Address	Character of Product
Pershing (a)	Villa Grove	U. S. Development Mining and Milling Company, Incorporated	410 Thatcher Building, Pueblo	Manganese
Rawley	Bonanza	Rawley Mines, S. E. Burleson	Salida	Gold, Silver, Lead, Copper
Turquoise	Villa Grove	A. J. Hall	Villa Grove	Turquoise
Warwick No. 2	Bonanza	Nicholas Keserich	Bonanza	Gold, Silver, Lead, Zinc

OPERATING MINES IN SAN JUAN COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Austria (a)	Silverton	Frank McCormac	725 Main Ave., Durango	Gold, Silver, Tungsten
Brooklyn	Silverton	Brooklyn Group of Claims	Box 524, Ouray	Gold, Silver
Burliew (a)	Silverton	J. M. Fraser	Eureka	Gold, Silver, Lead, Copper, Zinc
Caledonian (a) (m)	Silverton	Caledonian Mining and Milling Company, John Leith	Silverton	Gold, Silver, Lead, Copper, Zinc (c)
Champion (a)	Silverton	Champion Mine, M. S. Vosburg	629 Edison Building, Los Angeles, Calif.	Gold, Silver, Lead, Copper, Zinc
Copperbel (a)	Silverton	San Juan Mining Company	418 Flynn Building, Des Moines, Iowa	(c)
Crusader (a)	Silverton	Crusaders Gold Company	Creede	Gold, Silver (c)
*Crystal Lake (a)	Silverton	Crystal Lake Gold Mines, Incorporated, S. E. Simmons	Silverton	Gold, Silver
Ezra R. (a)	Silverton	The A. & M. Mining Company, H. S. Burgess	601 Main Street, Canon City	Gold, Silver, Lead, Copper, Zinc
Gold Hub (m)	Silverton	Gold Hub Mines Company	525 Denham Building, Denver	Gold, Silver, Lead, Copper
Golden Horn (a)	Silverton	Geo. C. Marbut	630 U. S. National Bank Building, Denver	Gold, Silver (c)
Highland Mary (a)	Silverton	Highland Mary Mines, Incorporated	900 Land Bank Building, Kansas City, Missouri	Silver, Lead, Zinc, Copper
Koehler Tunnel (a)	Silverton	Condotti and Kullerstrand	Ouray	Gold, Silver, Lead, Copper, Zinc
Little Dora	Silverton	Mystery Gold Mining Company	426 U. S. National Bank Building, Denver	Gold, Silver, Lead, Copper, Zinc

Little Fanny	Silverton	John Gilheany	Silverton	Gold, Silver, Lead, Copper, Zinc
Lucky Jack Group (a)	Eureka	Lucky Jack Gold Mining Company	247 Meeker Street, Delta	Gold, Silver, Lead, Copper, Zinc
Mabel (a) (m)	Silverton	San Juan Mining Company	418 Flynn Building, Des Moines, Iowa	Gold, Silver
May Day (a)	Silverton	Frank Wiley	Silverton	Gold, Silver, Lead, Copper
Mineral Creek (a)	Silverton	Mineral Creek Mining Company, J. D. Neville	Silverton	Gold, Silver, Lead, Copper (c)
Molas (a)	Silverton	Fred Olsen	Silverton	Gold, Silver, Lead, Copper (c)
Mystery Gold (m)	Silverton	Mystery Gold Mining Company	426 U. S. National Bank Building, Denver	Gold, Silver, Lead, Copper
North Star (m)	Silverton	North Star Sultan Mining Company	426 U. S. National Bank Building, Denver	Gold, Silver, Lead, Copper, Zinc
Old Green Mountain	Silverton	Pride of West, Incorporated	1716 California Street, Denver	Gold, Silver, Lead, Copper, Zinc
Ouray (a)	Silverton	Joe Condotti	Box 121, Ouray	Gold, Silver, Lead, Copper, Zinc
Pride of the West	Silverton	Pride of West, Incorporated	1716 California Street, Denver	Gold, Silver, Lead, Copper, Zinc
Ridgeway (a)	Silverton	The Ridgeway Mining Company	301 Burns Building, Colorado Springs	Gold, Silver, Lead, Copper, Zinc
Royal Charter (a)	Silverton	Royal Charter Development Company, Charles Hoole	Silverton	Gold, Silver, Lead, Copper, Zinc
Saint Paul (a)	Silverton	Little Tom Mining Company, Tom Pierce	Durango	Gold, Silver, Lead, Zinc (c)
Shenandoah-Dives (m)	Silverton	Shenandoah-Dives Mining Company	1000 Grand Avenue Temple, Kansas City, Missouri	Gold, Silver, Lead, Copper, Zinc
Sultan Mountain (a)	Silverton	Fred Olsen	Silverton	Gold, Silver, Lead, Copper (c)
Sunnyside (a) (m)	Eureka	The Sunnyside Mining and Milling Company	85 Exchange Street, Portland, Maine	Gold, Silver, Lead, Copper, Zinc
Thunder Tunnel and Detroit (a)	Silverton	Bert Ady	Silverton	Gold, Silver, Lead Copper, Zinc

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*Also located in San Miguel County.

(a) Operated for part of the year only. (c) No production reported in 1937. (m) Mill operated in connection with mine.

OPERATING MINES IN SAN JUAN COUNTY, 1937—Continued

Name of Mine	Location	Operator	P. O. Address	Character of Product
Tom Moore (a)	Silverton	Bentley M. McMullin	301 First National Bank Building, Denver	Gold, Silver, Lead, Copper, Zinc
Treasure Mountain	Silverton	Treasure Mountain Gold Mining Company	801 Midland Savings Bldg., Denver	Gold, Silver (c)
Wexford (a)	Silverton	Wexford Mines Company	448 Main St., Grand Junction	Gold, Silver, Lead, Copper, Zinc

OPERATING MINES IN SAN MIGUEL COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Alta-St. Louis (m)	Ophir	Alta Mines, Incorporated	2608 Arthington Street, Chicago, Ill.	Gold, Silver, Lead, Copper
Butterfly Consolidated (m)	Ophir	Butterfly Consolidated Mines, Incorporated	2432 No. 28th Street, Milwaukee, Wisconsin	Gold, Silver, Lead, Copper, Zinc
Carbonero	Ophir Loop	Matt Ruuttila	Ophir	Gold, Silver, Lead, Zinc (c)
Cimarron (a)	Telluride	Amparo Mining Company George C. Wagner	502 Drexel Building, Philadelphia, Pa. Telluride	Gold, Silver (c)
Gold Block (a)	Telluride	Frank Dalle	Telluride	Gold
Liberty Bell (a)	Telluride	Vincent Dulich and Amanuel Gatty	Telluride	Gold, Silver, Lead
Nellie and Laura (a) (m)	Telluride	Paul Nardin	Telluride	Gold, Silver
New Dominion (a)	Ophir	Earl Spillman and Associate	Telluride	Gold, Silver, Lead Copper, Zinc
Royal (m)	Telluride	A. E. Dalla and Matt Baracotta	Silverton	Gold
Savage (m)	Telluride	Oscar C. Blixt	Telluride	Gold
Slick Rock (m)	Cedar	North Continent Mines, Incorporated	512 Majestic Building, Cheyenne, Wyoming	Vanadium
Unaweep	Sawpit	Unaweep Mining Company	Fall Creek	Gold, Silver, Copper (c)
Veta (m)	Telluride	Veta Mines, Incorporated	507 Boston Building, Denver	Gold, Silver, Lead, Zinc

OPERATING MINES IN SUMMIT COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Bemrose Placer (a) (m)	Breckenridge	Hoosier Gold Mines Incorporated	746 Equitable Building, Denver	Gold, Silver
Big Four on Green Mountain	Kremmling	Walter McDaniel	Blue River Stage, Kremmling	Gold, Silver, Lead
Boston (a)	Kokomo	Boston Lease, Harold Kane	Kokomo	Gold, Silver, Lead, Zinc
Cabinet Group (a)	Kokomo	Vermillion and Laverents	Kokomo	Gold, Silver, Lead
Carbonate (a) (m)	Breckenridge	North American Exploration Mining and Milling Company, W. M. Moenke	807 Tramway Building, Denver	Gold, Silver, Lead, Zinc
Congress	Tiger	Congress Gold Mining Company, E. P. Moe	421 Empire Building, Denver	Gold, Silver, Lead, Zinc
Delaware	Kokomo	Walter Byron	Kokomo	Gold, Silver, Lead
Florado (a)	Montezuma	Florado Mining Company, F. R. Wolfle	Montezuma	Gold, Silver, Lead
Fredonia	Breckenridge	Fredonia Mine, J. A. Werme	Breckenridge	Silver, Lead
Gold Crest	Kokomo	The Gold Crest Mining Company	905 13th Street, Golden	Gold, Silver
Jessie (a) (m)	Breckenridge	The Royal Tiger Mines Company	Tiger	Gold, Silver
Jumbo	Breckenridge	Jumbo Properties Incorporated, W. C. Krape	708 Colorado Building, Denver	Gold, Silver, Zinc
McDowell (m)	Alma	McDowell Mines, Incorporated	746 Equitable Building, Denver	Gold, Silver
New York	Montezuma	Walter N. Head	Montezuma	Gold, Silver, Lead, Zinc
Tempest (a)	Montezuma	R. C. Barnes and C. E. Kelly	1200 Lawrence Street, Denver	Gold, Silver, Lead, Zinc
Thunderbolt	Dillon	Croesus Mining Company, H. C. Perks	Dillon	Gold, Silver, Lead
War Eagle	Montezuma	John Singleton	1333 Ames Street, Edgewater	Gold, Silver, Lead, Zinc

OPERATING MINES IN TELLER COUNTY, 1937

Name of Mine	Location	Operator	P. O. Address	Character of Product
Accident Dump	Cripple Creek	Frank D. Doepke	604 E. Fontanero Street, Colorado Springs	Gold
Ada Bell	Raven Hill	Ada Bell Gold Mining Company	Cripple Creek	Gold
Agnes	Raven Hill	Colorado Gold, Incorporated	1506 Welton Street, Denver	Gold
Ajax	Battle Mountain	The Golden Cycle Corporation	Box 86, Colorado Springs	Gold
American Eagles	Bull Hill	American Gold Incorporated, American Eagle Gold Producer Incorporated and Western Mining and Leasing Company	2239 E. Colfax, Denver	Gold

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(a) Operated for part of the year only. (c) No production reported in 1937. (m) Mill operated in connection with mine.

OPERATING MINES IN TELLER COUNTY, 1937—Continued

Name of Mine	Location	Operator	P. O. Address	Character of Product
Anchoria Leland	Gold Hill	The Golden Cycle Corporation	Box 86, Colorado Springs	Gold
Anna J.	Bull Hill	Lee Baker and Company	Victor	Gold
Arequa Townsite etc.	Cripple Creek	New Gold Dollar Mining Company	349 E. Bennett Ave., Cripple Creek	Gold
Atlanta	Independence	Atlanta Mining Company Incorporated	Box 308, Salina, Kansas	Gold
Black Belle	Cripple Creek	Q.-B. Mining Company	716 Symes Building, Denver	Gold
Block 8 (School Section)	Bull Hill	W. A. Kyner & Company	Cripple Creek	Gold
Blue Bird	Bull Hill	The Blue Moxie Gold Mining Company and The Golden Cycle Corporation	33 Independence Building, Colorado Springs	Gold
Cameron Townsite	Cripple Creek	Cameron Gold Mines Incorporated	512 Equitable Building, Denver	Gold
C. K. and N. Dump (a)	Beacon Hill	Mrs. Anna R. Wilder	Cripple Creek	Gold
Colorado City	Bull Hill	Colorado Gold Incorporated	1536 Welton Street, Denver	Gold
Conundrum	Gold Hill	The Conundrum Syndicate, Charles W. Howbert	Cripple Creek	Gold
Cresson	Eclipse Gulch	Cresson Consolidated Gold Mining and Milling Company	Box 86, Colorado Springs	Gold
Dante	Bull Hill	The Dante Lease	Box 222, Victor	Gold
Deadwood Shaft	Bull Hill	Gold Bullion Mines Incorporated	434 U. S. National Bank Building, Denver	Gold
Delmonico	Bull Cliffs	Smith & Denny	1542 Lawrence Street, Denver	Gold
Dexter	Bull Hill	Hamlet-Dexter Mines Corporation	1002 Press Building, Binghampton, New York	Gold
Dolly Varden	Raven Hill	Squaw Gulch Gold Mining Company	1130 First National Bank Building, Denver	Gold (c)
Economic Dump	Eclipse Gulch	The Economic Dump Leasing Company	Cripple Creek	Gold
Eldredge Group (a)	Cripple Creek	Ocabams Mining Incorporated	407 Thatcher Building, Pueblo	Gold (c)
Elkton	Raven Hill	The Elkton Company	Box 86, Colorado Springs	Gold
Elkton Dump	Raven Hill	Charles Ronning and Clyde F. Jenks	Cripple Creek	Gold
Ella W. (a)	Tenderfoot Hill	Ella W. Syndicate, Karl V. Simson	Box 151, Victor	Gold (c)
Ellis	Rhyolite Mountain	Ellis Mining Company, George W. White	La Junta	Gold
El Paso	Beacon Hill	Gold Producers, Incorporated	520 U. S. National Bank Building, Denver	Gold
El Paso & Nicholls Shaft	Beacon Hill	New El Paso Mines, Incorporated	520 U. S. National Bank Building, Denver	Gold
Emma L. (a)	Clyde	H. J. Lehman	3049 Gaylord Street, Denver	Gold (c)
Fairview	Midway	Fairview Mining Company	956 First National Bank Bldg., Oklahoma City, Okla.	Gold
Forest Queen	Ironclad Hill	Lark Mining Company	604 First National Bank Building, Denver	Gold
Geneva & Matoa	Gold Hill	Peterson & Twinem	Cripple Creek	Gold

Gold Bond	Gold Hill	The Golden Swan Mining Company	Box 312, Colorado Springs	Gold
Gold Coin	Victor	W. D. Wade and Company	349 E. Bennett Ave., Cripple Creek	Gold
Gold Sovereign	Bull Hill	Gold Sovereign Lease	Box 222, Victor	Gold
Goodwill Tunnel	Gold Hill	W. S. and B. Leasing Company, Hildreth Frost	Colorado Springs	Gold
Hardwood Claim	Ironclad Hill	The United Gold Mines Company	Box 86, Colorado Springs	Gold
Henry Adney	Beacon Hill	The Adney Gold Mining Company	1511 No. Tejon, Colo. Springs	Gold
Hiawatha (a)	Beacon Hill	Hiawatha Gold Mining Company	Box 36, Colorado Springs	Gold
Ida Bell and Empire Lee	Bull Hill	M. G. Young and Associates	321 E. Bijou St., Colorado Springs	Gold
Ironclad (m)	Cripple Creek	Thomas Kavanaugh	Cripple Creek	Gold
Jerry Johnson	Ironclad Hill	The Jerry Johnson Gold Company Incorporated	349 E. Bennett Ave., Cripple Creek	Gold
Joe Dandy	Raven Hill	The Joe Dandy Mining Company	Box 34, Colorado Springs	Gold
John A. Logan	Bull Hill	International Gold Producers, Incorporated	724 Cooper Building, Denver	Gold
Kitty Wells	Cripple Creek	Harry Dilts	Cripple Creek	Gold
Last Dollar	Bull Hill	The United Gold Mines Company	Box 86, Colorado Springs	Gold
Le Clair	Raven Hill and Gold Hill	The Le Clair Consolidated Mines Company	110 No. Tejon St., Colorado Springs	Gold
Lone Pine (a)	Mineral Hill	The Lone Pine Gold Mining Company	205 Pueblo Savings and Trust Company, Pueblo	Gold (c)
Los Angeles	Bull Hill	Tennessee Mines, Incorporated, A. E. Swenson	500 Birch Street, Denver	Gold
Mary Nevin	Rosebud Hill	Around the World Grubstakes, Incorporated	432 U. S. National Bank Building, Denver	Gold
Midget, Mariposa and Duval	Cripple Creek	The Atlas Gold Mines Company	604 E. Fontanero, Colorado Springs	Gold
Mollie Kathleen	Tenderfoot Hill	The Tenderfoot Mining Company	1010 First National Bank Building, Denver	Gold
Moose	Elkton	Moose Mine Operations, Incorporated	307 Colorado National Bank Building, Denver	Gold
Nest Egg	Carbonate Hill	J. J. Elmore and Associates	Cripple Creek	Gold (c)
Oak etc.	Bull Hill	Odelca Mining Company	329 E. 11th Ave., Denver	Gold
Orpha May	Bull Hill	The Orpha May Mining Company	Box 434, Victor	Gold
Patti Rosa	Bull Hill	The United Gold Mines Company	Box 86, Colorado Springs	Gold
Pharmacist	Bull Hill	The Pharmacist Gold Mining Company	Box 86, Colorado Springs	Gold
Pikes Peak (a)	Bull Hill	H. C. Nelson and Associates	Victor	Gold
Portland	Battle Mountain	The United Gold Mines Company	Box 86, Colorado Springs	Gold
Prince Albert etc. Dump	Cripple Creek	J. R. Woodward	Idaho Springs	Gold

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OPERATING MINES IN TELLER COUNTY, 1937—Continued

Name of Mine	Location	Operator	P. O. Address	Character of Product
Proper Claims, Blocks 99-100-1-6-7-8-9	Cripple Creek	Golden Globe Mining Corporation	Box 126, Cripple Creek	Gold
Queen	Eclipse Gulch	Lark Mining Company	304 Colorado Bldg., Denver	Gold
Ramona	Blue Hill	Ramona Mines Company	610 First National Bank Building, Denver	Gold
Requa-Savage	Cripple Creek	Trio Gold Mining Company	Colorado Springs	Gold
Rittenhouse Shaft	Gold Hill	Rittenhouse Mines Incorporated	Box 36, Colorado Springs	Gold
Roman-Savage etc.	Cripple Creek	Rainbow Gold Mines Company	615 California Bldg., Denver	Gold
Rose Nicol	Battle Mountain	The United Gold Mines Company	Box 86, Colorado Springs	Gold
Sangre de Cristo etc.	Tenderfoot Hill	The Tenderfoot Mining Company	1010 First National Bank Building, Denver	Gold
Santa Rita	Squaw Mountain	The Santa Rita Extension	412 Minnequa Ave., Pueblo	Gold
Solomon	Ironclad Hill	Solomon Leasing Syndicate	Cripple Creek	Gold
South Burns Shaft	Altman	Golden Conqueror Mines Incorporated Acacia Gold Mining Company	Box 212, Manitou Springs 710 North Wahsatch Ave., Colorado Springs	Gold
Specimen	Bull Hill	The Lone Eagle Gold Mining Company	724 Cooper Building, Denver	Gold
Stratton's Independence	Battle Mountain	Newstrom and Davis	8th and Navajo Sts., Denver	Gold
Stratton Properties	Cripple Creek District	The Stratton Cripple Creek Mining and Development Company	Box 178, Colorado Springs	Gold
Strong	Victor	Strong Leasing and Mining Company	826 Continental Oil Building, Denver	Gold
Teutonic	Cripple Creek	Ralph Woodward	Idaho Springs	Gold
Theresa Shaft	Bull Hill	The United Gold Mines Company	Box 86, Colorado Springs	Gold
Trail Tunnel	Bull Hill	The United Gold Mines Company	Box 86, Colorado Springs	Gold
Unity	Guyot Hill	Unity Gold Corporation, Evan J. Williams	Cripple Creek	Gold
Vindicator	Bull Hill	The United Gold Mines Company	Box 86, Colorado Springs	Gold
Victor	Cripple Creek	Hidalgo Gold Mines Incorporated and Gold Producers, Incorporated	520 U. S. National Bank Building, Denver	Gold
Vulcano	Gold Hill	James Clifford and Henry Hartman	Cripple Creek	Gold
War Eagle	Bull Hill	The Lone Eagle Gold Mining Company	724 Cooper Building, Denver	Gold
Wilson Shaft	Battle Mountain	Garberich and Company Lease	Elkton	Gold

OPERATING QUARRIES AND CLAY PITS, 1937

Town	County	Name	Product	Operator	Address
Buena Vista	Chaffee	Clora Mae	Feldspar	Ralph H. Magnuson	1333 W. Maple, Denver
Buena Vista	Chaffee	Homestake	Feldspar	L. D. Christison	Buena Vista
Monarch	Chaffee	Monarch Lime	Limestone and Dolomite	The Colorado Fuel & Iron Corp.	Continental Oil Bldg., Denver
Salida	Chaffee	Salida Granite	Granite	Salida Granite Corporation	Salida
Salida	Chaffee	Warner Granite	Monumental Granite	James N. Warner	321 E. 5th St., Salida
Idaho Springs	Clear Creek	Grover Feldspar	Feldspar	Joe Grover	Park City, Utah
Westcliffe	Custer	Lake View Feldspar	Feldspar	J. E. Cowan and Associate	Canon City
Westcliffe	Custer	School Land	Vermiculite	Colorado Vermiculite Co., Inc.	350 Madison Ave., New York City
Westcliffe	Custer	Sparling Ranch	Vermiculite	Colorado Vermiculite Co., Inc.	350 Madison Ave., New York City
Westcliffe	Custer	Voss Land	Vermiculite	George and Ernest Stultz	Box 79, Westcliffe
Castle Rock	Douglas	Castle Rock City Clay	Plastic Clay	A. C. Nipko	Castle Rock
Silica	Douglas	Helmer Fire Clay	Fire Clay	T. L. and George Helmer	Box 94, Littleton
Silica	Douglas	Helmer Limestone	Limestone	T. L. and George Helmer	Box 94, Littleton
Silica	Douglas	Helmer Red Sand	Red Sand	T. L. and George Helmer	Box 94, Littleton
Silica	Douglas	Helmer White Sand	Silica Sand	T. L. and George Helmer	Box 94, Littleton
Castle Rock	Douglas	Johnson Clay	Plastic Clay	H. G. Johnson	Castle Rock
....	Douglas	Lone Pine Feldspar	Feldspar	Ralph H. Magnuson	1333 W. Maple Ave., Denver
Devils Head	Douglas	Skeleton No. 2	Feldspar	Ralph H. Magnuson	1333 W. Maple Ave., Denver
Watertown	Douglas	Slocum Fire Clay and Limestone	Fire Clay, Plastic Clay & Limestone	Slocum Brothers	Route 1, Box 96, Littleton
Manitou Springs	El Paso	Black Canon	Limestone	The Thomas & Brown Lime Co.	607 Thatcher Bldg., Pueblo
Manitou Springs	El Paso	Garden City	Limestone	The Thomas & Brown Lime Co.	607 Thatcher Bldg., Pueblo
Husted	El Paso	Hecla Clay	Fire Clay	The Standard Fire Brick Co.	24th and Albany, Pueblo
Keithley Road	El Paso	Hillbright	Limestone	The Thomas & Brown Lime Co.	607 Thatcher Bldg., Pueblo
Colorado Springs	El Paso	Lennox Breed	Limestone	Holly Sugar Corporation	Colorado Springs
Manitou Springs	El Paso	Manitou Plant	Limestone	The Thomas & Brown Lime Co.	607 Thatcher Bldg., Pueblo
Colorado Springs	El Paso	National Clay Products Plant	Building Brick	National Clay Products Co.	1224 E. Platte Ave., Colorado Springs
Manitou Springs	El Paso	Western Lime Rock and Lime Burning Plant	Lime	The Thomas & Brown Lime Co.	9th and Bradford Sts., Pueblo
Canon City	Fremont	Alnea—South Gorge	Silica Rock	The Diamond Fire Brick Co., % May C. Riede	Box 107, Canon City
Canon City	Fremont	Climax Placer and Myra	Fire Clay	The Diamond Fire Brick Co.	Box 107, Canon City

OPERATING QUARRIES AND CLAY PITS, 1937—Continued

Town	County	Name	Product	Operator	Address
Texas and Oak Creeks	Fremont	Coleman Indian Pink and Coleman Oak Creek	Granite	V. D. Coleman and Company	218 W. Cimarron St., Colorado Springs
Canon City	Fremont	Colorado Feldspar	Feldspar	Colorado Feldspar Company	Canon City
Phantom Canyon	Fremont	Colorado Red	Travertine and Marble	Colonna and Company of Colorado, Incorporated	Box 387, Canon City
Wellsville	Fremont	Colorado Travertine	Travertine	Colorado Travertine Company	162 N. Franklin St., Chicago, Ill.
Canon City	Fremont	Diamond Fire Brick Plant and Flint Clay	Fire Clay	The Diamond Fire Brick Co.	Box 107, Canon City
Canon City	Fremont	Dolomite Quarry	Dolomite	The Colorado Fuel & Iron Corp.	Continental Oil Building, Denver
Canon City	Fremont	Four Mile—Shaw Park, H. Rock	Silica	The Diamond Fire Brick Co.	Box 107, Canon City
Canon City	Fremont	Ganister	Ganister	S. Vernon St. John	Box 462, Canon City
Gem Park	Fremont	Gem Park—Vermiculite	Vermiculite	Vermiculite Co. of America	133 So. Seventh St., Minneapolis, Minn.
Coaldale	Fremont	Gypsum	Gypsum	Colorado Portland Cement Co.	Denver National Bldg., Denver
Portland	Fremont	Ideal Cement Plant and Quarry	Limestone and Shale	Ideal Cement Company	Denver National Bldg., Denver
Canon City	Fremont	Pig Back Shale	Shale	The Diamond Fire Brick Co.	Box 107, Canon City
Wellsville	Fremont	Rogers	Limestone	George R. Rogers	648 "H" St., Salida
Texas Creek	Fremont	Rose Pink Granite	Granite	Salida Granite Corporation	Salida
Eight Mile Park	Fremont	Shipley Feldspar	Feldspar	Ralph H. Magnuson	1333 W. Maple, Denver
Spikebuck	Fremont	Spikebuck	Feldspar	Ralph H. Magnuson	1333 W. Maple, Denver
Canon City	Fremont	Stanko Feldspar	Feldspar and Mica	Ralph H. Magnuson	1333 W. Maple, Denver
Micanite	Fremont	Star Girl Feldspar	Feldspar	Colorado Feldspar Company	Canon City
Canon City	Fremont	Summit Pressed Brick	Fire and Plastic Clay	The Summit Pressed Brick and Tile Company	Pueblo
Canon City	Fremont	Swastika	Fire Clay	The Diamond Fire Brick Co.	Box 107, Canon City
Wellsville	Fremont	Taylor Gulch	Limestone	Frank H. Norberg, Inc.	1007 U. S. National Bank Bldg., Denver
Canon City	Fremont	Vermiculite	Vermiculite	General Vermiculite Corp.	Canon City
Texas Creek	Fremont	Zingheim's Mica and Feldspar	Feldspar, Mica and Beryl	E. E. Zingheim	Box 190, Orchard Avenue, Canon City
Glenwood Springs	Garfield	Glenwood	Limestone	Holly Sugar Corporation	Colorado Springs

OPERATING QUARRIES AND CLAY PITS, 1937—Continued

Town	County	Name	Product	Operator	Address
Marble	Gunnison	Yule Colorado Marble	Marble	Yule Colorado Marble Company	Marble
Mustang	Huerfano	Chamblin Spur Clay	Fire Clay	The Standard Fire Brick Co.	24th and Albany, Pueblo
Mustang	Huerfano	Chamblin Spur Silica, Sandstone	Sandstone	The Standard Fire Brick Co.	24th and Albany, Pueblo
Golden	Jefferson	Binder Clay Mine and Brick Plant	Fire Clay	Denver Pressed Brick Company	W. 16th Ave. and Clay St., Denver
Golden	Jefferson	Coors Clay Mines and Porcelain Plant	Plastic Clay and Feldspar	Coors Porcelain Company	Golden
Golden	Jefferson	Crucible Clay Mine and Plant	Fire Clay	Denver Fire Clay Company	Box 5510, Denver
Golden	Jefferson	Fire Clay South	Fire Clay	Grant Parfet	Box 266, Golden
Golden	Jefferson	Golden Clay Mines and Brick Plant	Fire and Plastic Clay	Golden Fire Brick Company	Golden
Golden	Jefferson	Johnson Clay Mine	Fire Clay	The Denver Sewer Pipe & Clay Company	P. O. Box 2329, Denver
Golden	Jefferson	Lakewood No. 10 and Golden Fire Brick	Plastic Clay	Grant Parfet	Box 266, Golden
Golden	Jefferson	Lindsay Clay Mines	Fire Clay	Geo. W. Lindsay	31st and Blake Sts., Denver
Golden	Jefferson	Moffit Clay and Wilson Mine	Fire Clay	The Denver Sewer Pipe & Clay Company	P. O. Box 2329, Denver
Golden	Jefferson	Rockwell Clay	Plastic Clay	George W. Parfet Estate, Inc.	Box 266, Golden
Golden	Jefferson	Rubey Clay	Plastic Clay	The H. M. Rubey Clay Co.	Box 266, Golden
Laporte	Larimer	Alabaster Quarry and Plant	Alabaster	Alabaster Company of America	146 So. College Ave., Ft. Collins
Laporte	Larimer	Boettcher Cement Quarry and Mill	Limestone and Shale	Ideal Cement Company	Denver Nat. Bldg., Denver
Laporte	Larimer	Clark Quarries	Limestone	Clark Quarries, Incorporated	Box 503, Fort Collins
Bellvue	Larimer	Josefson	Limestone	John and Victor Josefson	Bellvue
Loveland	Larimer	U. S. Gypsum Quarry and Mill	Gypsum	United States Gypsum Co.	300 W. Adams St., Chicago, Ill.
Trinidad	Las Animas	Trinidad Brick and Tile	Shale, Brick and Tile	Trinidad Brick & Tile Co.	Trinidad
Creede	Mineral	Ultimate Tunnel	Bentonite	Peerless Clay & Mineral Co.	211 First National Bank Bldg., Pueblo
La Junta	Otero	La Junta Shale and Brick	Shale, Brick and Tile	La Junta Clay Products, Incorporated	La Junta
Bailey	Park	Bailey Mine	Feldspar	Ralph H. Magnuson	1333 W. Maple, Denver
Lake George	Park	Big Buck and Dr. Pepper	Feldspar	E. L. McKinley	Lake George
Pueblo	Pueblo	Livesey Quarry	Building Stone	Western Lime Company	551 Equitable Bldg., Denver
Stone City	Pueblo	Nellie Helen Clay	Fire Clay	Arthur L. Wands	Stone City

OPERATING QUARRIES AND CLAY PITS, 1937—Continued

Town	County	Name	Product	Operator	Address
Pueblo	Pueblo	Pueblo Plant	Brick and Tile	The Thomas & Brown Lime Co.	607 Thatcher Bldg., Pueblo
Pueblo	Pueblo	Standard Fire Brick	Tile, Brick and Fire Clay	Standard Fire Brick Company	Box 654, Pueblo
Stone City	Pueblo	Stone City Clay, Kilns and Ganister	Ganister, Plastic and Fire Clay	The Pueblo Clay Products Co.	9th and Bradford Sts., Pueblo
Stone City	Pueblo	Stone City Gypsum	Gypsum	The Thomas Coal and Lime Co.	P. O. Box 1657, Pueblo
Pueblo	Pueblo	Summit Pressed Brick	Brick and Tile	The Summit Pressed Brick and Tile Company	Pueblo
Capers Junction	Pueblo	Vulcan Clay	Fire Clay	The Standard Fire Brick Co.	24th and Albany, Pueblo

OPERATING MILLS AND SMELTERS, 1937

Character of Plant	Town	County	Operator	Address
Acme Mill	Jamestown	Boulder	Acme Mining and Milling Co.	Box 486, Denver
Boulder Custom Mill	Boulder	Boulder	Mining Associates, Incorporated	First Nat'l Bank Bldg., Boulder
Boulder Sampling Works	Boulder	Boulder	St. Joe Mining and Milling Co.	Boulder
Mammoth Custom Mill	Nederland	Boulder	Fansteel Mining Corporation	North Chicago, Illinois
Carey Mill	St. Elmo	Chaffee	Philip Carey Mining and Milling Company	St. Elmo
Ruth Custom Mill	Idaho Springs	Clear Creek	The Ruth Company	Continental Oil Bldg., Denver
Silver Leaf Mill	Silver Plume	Clear Creek	George Rowe and Associate	Silver Plume
Stroehlke Mill	Silver Cliff	Custer	J. T. Stroehlke and Associate	Silver Cliff
Arsenic and Cadmium Refinery	Denver	Denver	American Smelting and Refining Company	120 Broadway, New York City
Colorado Smelting & Refining Company Plant 1	Denver	Denver	Colorado Smelting and Refining Company	1277 So. Cherokee St., Denver
Golden Cycle Mill	W. Colorado Springs	El Paso	The Golden Cycle Corporation	Exchange National Bank Building, Colorado Springs
Colonna Marble Grinding Plant	Canon City	Fremont	Colonna and Company of Colorado, Incorporated	Box 387, Canon City
Colorado Feldspar Mill	Canon City	Fremont	Colorado Feldspar Company	Canon City
R. D. Webb Mill	Florence	Fremont	Robert D. Webb	Florence
Vermiculite Roasting Plant	Canon City	Fremont	General Vermiculite Corp.	Canon City
Boland Mill	Russell Gulch	Gilpin	J. J. Boland	Idaho Springs
Colorado Molybdenum Corporation Custom Plant	Pitkin	Gunnison	Colorado Molybdenum Corp.	2720 W. 37th Ave., Denver
Arkansas Valley Smelter	Leadville	Lake	American Smelting and Refining Company	120 Broadway, New York City
H. G. N. Mill	Leadville	Lake	H. G. N. Mining and Milling Co.	Leadville
Leadville Metals Mill	Leadville	Lake	Leadville Metals Milling Co.	514 First Nat'l Bk. Bldg., Denver
R. J. Bryant Mill	Leadville	Lake	R. J. Bryant	Leadville
Pioneer Gold Mill	Hesperus	La Plata	Pioneer Gold Producers, Inc.	Durango
Creede Custom Mill	Creede	Mineral	Creede Mill, Incorporated	1024 Patterson Building, Denver
U. S. Vanadium Reduction Plant	Uravan	Montrose	U. S. Vanadium Corporation	30 E. 42nd St., New York City
Metals Recovery Company Mill	Aspen	Pitkin	Metals Recovery Company	Aspen
Mica Grinding Plant	Blende	Pueblo	Western Non-Metallics, Inc.	211 First Nat'l Bk. Bldg., Pueblo
Peerless Clay Grinding Plant	Pueblo	Pueblo	Peerless Clay and Mineral Co.	211 First Nat'l Bk. Bldg., Pueblo
Cripple Creek Mill	Globe Hill	Teller	Cripple Creek Milling Company	604 First Nat'l Bk. Bldg., Denver
Old Eagle Sampler	Goldfield	Teller	Christian and C. A. Zaring	Colorado Springs

OPERATING PLACERS AND DREDGES, 1937

Name	Town	County	Operator	Address
Brannon		Adams	W. B. Kerkling	1231 So. Gaylord, Denver
	Eastlake	Adams	W. Tincher	Eastlake
		Adams	Robert Ray	1425 Delaware St., Denver
	Sanderson Gulch	Arapahoe	A. L. Benson	Denver
Beaver Creek	Rollinsville	Boulder	C. E. Adcock and D. F. Marble	Rollinsville
Colby	Boulder	Boulder	Leamon Vaughn	Star Route, Wall Street. Boulder
Giggey	Boulder	Boulder	Leamon Vaughn	Star Route, Wall Street. Boulder
Franklin	Granite	Chaffee	Charles Franklin	Granite
Gold Basin	Granite	Chaffee	Savage Mining Company	Granite
	Granite	Chaffee	Merle F. Frey	Granite
	Idaho Springs	Clear Creek	J. C. Hall and Associates	Idaho Springs
	Idaho Springs	Clear Creek	Lee Miller and Associates	Idaho Springs
	Newlin Gulch	Douglas	M. Baird	Franktown
Collins	Blackhawk	Gilpin	L. D. Clark	Blackhawk
Eugene Mines	Blackhawk	Gilpin	Edward Manion	1776 Krameria St., Denver
Missions	Blackhawk	Gilpin	Missions Mines Company	Blackhawk
Morgan	Blackhawk	Gilpin	Richard Leoncanvello	Blackhawk
Pactolus	Pinecliffe	Gilpin	Cooley Gravel Company	Pinecliffe
	Central City	Gilpin	D. E. and Lloyd Crosswhite	Central City
	Blackhawk	Gilpin	Robert Dunfield	Blackhawk
	Blackhawk	Gilpin	Leonard C. Terry	Blackhawk
	Rollinsville	Gilpin	John Schroeder	Rollinsville
Nora	Crested Butte	Gunnison	J. T. Boyle and Associate	% Rialto Theater, Alamosa
Derry Ranch	Leadville	Lake	Mt. Elbert Mining Company	Grand Junction
Pantle	Leadville	Lake	John C. Pantle	2428 4th Ave., Pueblo
Zaitz	Leadville	Lake	Frank Zaitz	Leadville
Cal	Durango	La Plata	J. Walters, Jr.	Strater Hotel, Durango
Eldorado Gold	Craig	Moffat	Eldorado Gold Placer Mines	318 Zeigler Bldg., Spokane, Wash.
Old Faithful	Great Divide	Moffat	Mrs. Marie Farnsworth	102 E. Cedar St., Rawlins, Wyo.
Amalgamator Flat	Naturita	Montrose	McNeal and Evans	Naturita
Blake-Amalgamator Flat	Naturita	Montrose	Stanley W. Ferber and Willis McLaughlin	Naturita
Cottonwood	Nucla	Montrose	Edgar L. Bunch	Nucla
Dolores	Grand Junction	Montrose	Dolores Placer Company	517 N. Second St., Grand Junction
Hardscrabble	Uravan	Montrose	E. E. Sargent	Uravan
Beaver Creek	Fairplay	Park	Beaver Creek Placer Corp	Fairplay
General	Fairplay	Park	General Placers	Fairplay
Hitchins Placer	Alma	Park	Park County Gold Mines, Inc	310 Bennett Building, Colorado Springs
Illinois Central	Alma	Park	John P. Look	1307 Elati St., Denver
Logue Placer	Alma	Park	C. L. Logue	Alma
P. and M.	Alma	Park	P. and M. Mines	Alma
Pit Placer	Alma	Park	Jack Richards	Alma
Snider Gold Placer	Alma	Park	Snider Gold Placers	Alma
South Park Dredge	Fairplay	Park	John Mainz	4027 Alcott St., Denver

OPERATING PLACERS AND DREDGES, 1937—Continued

Name	Town	County	Operator	Address
Wilson Placer	Como	Park	Peerless Mining Co., % F. J. Axtell	Eustis, Nebraska
	Alma	Park	Ed and Herman Doppelmeyer	Alma
	Alma	Park	Roy E. and Everett Johnson	Alma
	Alma	Park	Cullen and J. M. Ledbetter	Alma
	Alma	Park	H. Leder	Alma
	Alma	Park	Smith and Wentz	Alma
	Fairplay	Park	Miles O. Deatherage	Fairplay
	Fairplay	Park	E. E. Lytle	Fairplay
	Como	Park	C. V. Dugan	Como
Hornet	Hahns Peak	Routt	Hornet Gold Mining Company	Clark
Bear Creek	Telluride	San Miguel	A. B. Couse and Associate	Telluride
Gold Run Placer and Mill	Telluride	San Miguel	San Juan Metals Corporation	9 Rockefeller Plaza, New York City
Lucky Strike and Lucky Strike No. 2	Telluride	San Miguel	General Machinery & Supply Co.	635 Walnut St., Denver
Beaver Head	Breckenridge	Summit	Walter Riggle	Box 432, Breckenridge
Bemrose and Bostwick	Breckenridge	Summit	Colorado Gold Recovery Corp. Hoosier Gold Mines Company	Alma 746 Equitable Bldg., Denver
Blue River	Breckenridge	Summit	Earl Riblett	Breckenridge
Center, Dorset and Gem	Kokomo	Summit	McNulty Placers, Incorporated	319 C. A. Johnson Bldg., Denver
Continental Dredge	Breckenridge	Summit	The Continental Dredging Co.	1716 California St., Denver
Long Island	Breckenridge	Summit	Christ George	Breckenridge
Louis D.	Breckenridge	Summit	M. L. Miller	Alma
Tiger	Tiger	Summit	Tiger Placers Company	Tiger
Washington	Breckenridge	Summit	G. W. Hale and Associate	Breckenridge
	Breckenridge	Summit	Everett Johnson	Breckenridge
Hayden	Cripple Creek	Teller	W. S. Moore	Cripple Creek
Rosebud	Cripple Creek	Teller	Chris Larson and Associates	Cripple Creek

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